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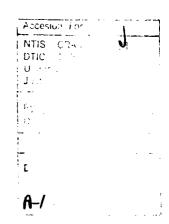


U.S. DEPARTMENT OF COMMERCE NOAA, NATIONAL OCEAN SERVICE OFFICE OF OCEANOGRAPHY AND MARINE ASSESSMENTS OCEAN ASSESSMENT DIVISION, ALASKA OFFICE

## **CLIMATIC ATLAS**

# OF THE OUTER CONTINENTAL SHELF WATERS AND COASTAL REGIONS OF ALASKA

VOLUME I GULF OF ALASKA



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The extremes data in the first section were updated through 1984 from a published Alaska Climate Summaries done by AEIDC in another project, published Canadian normals 1951-1980, and data supplied by Drs. Howard Critchfield and Kelly Redman, state climatologists for Washington and Oregon. Joseph C. LaBelle, glaciologist and geomorphologist at AEIDC assisted in the preparation of Cook Inlet ice and

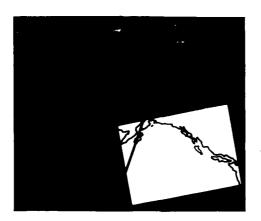
calving glacier ice in Volume I. Thanks also to Denise Cote for editing section I of all volumes and Laura J. Larson who was graphics project leader for the atlas and scheduled work on maps, charts, and text for all 3 volumes.

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#### **Abstract**

This project updates the knowledge of climatological conditions presented in the 1977 publication of this three-volume atlas. Such environmental information for the three Alaskan marine and near-coastal areas is important for resource development of the outer continental shelf—The Gulf of Alaska (Volume I), the Bering Sea (Volume II), and The Chukchi and Beaufort Seas (Volume III) as shown on the map below.

The maps, graphs, and tables in the atlas present a detailed climatic profile of the marine and coastal regions of Alaska. Statistics give the means, extremes, and percent frequency of occurrence of threshold values for these elements: wind, visibility, present weather, sea level pressure, air and sea surface temperature, clouds, waves, and such supplemental information as storm surges, tides, sea ice, cyclone tracks, surface currents, bathymetry, detailed weather, and aviation weather. Data came from



4.5 million surface marine observations and 8.5 million observations for 66 coastal and island stations within the area 40°-84°N and 110°W-160°E, and provide the best possible climatological picture of the outer continental shelf waters and coastal regions of Alaska.

#### Introduction

The nature of man's offshore activities depends to a large extent on weather conditions. Knowledge of these conditions can help insure efficient and safe operations. Extreme weather conditions that may be encountered in a given location largely determine the design, construction, and operation of permanent platforms and structures in the ocean as well as onshore support activities. This atlas is useful to those engaged in shipping, national defense, fishing, and applied research where a knowledge of coastal and offshore climate is essential. Weather information also aids in assessing the onshore impact of offshore activities.

This atlas is the result of a joint effort by the Arctic Environmental Information and Data Center (AEIDC), University of Alaska and the National Climatic Data Center/National Oceanic Atmospheric Administration (NCDC/NOAA) to present descriptive climatology and data analyses of surface marine and atmospheric parameters for those waters and coastal regions of the Alaskan outer continental shelf important to resource development. It is designed to serve as a climatological reference in the assessment of potential impact by oil and gas exploration and development and of leasing and operating regulations and monitoring programs that will permit resource development and insure environmental protection.

The evaluation is in the form of a climatic atlas for each of three marine and coastal areas: The Gulf of Alaska (Volume I), The Bering Sea (Volume II), and The Chukchi and Beaufort Seas (Volume III).

The first section in each volume contains information on such hazards as storm surges, superstructure icing, hypothermia, and wind chill; extremes data on winds, temperature, and precipitation; and planning information on surface currents, bathymetry, sea ice, and tides. The second section presents a detailed climatic profile in the form of isopleth analyses, graphs, and tables.

## Section I: Selected Topics in Marine and Coastal Climatology

by James L. Wise and Lynn D. Leslie

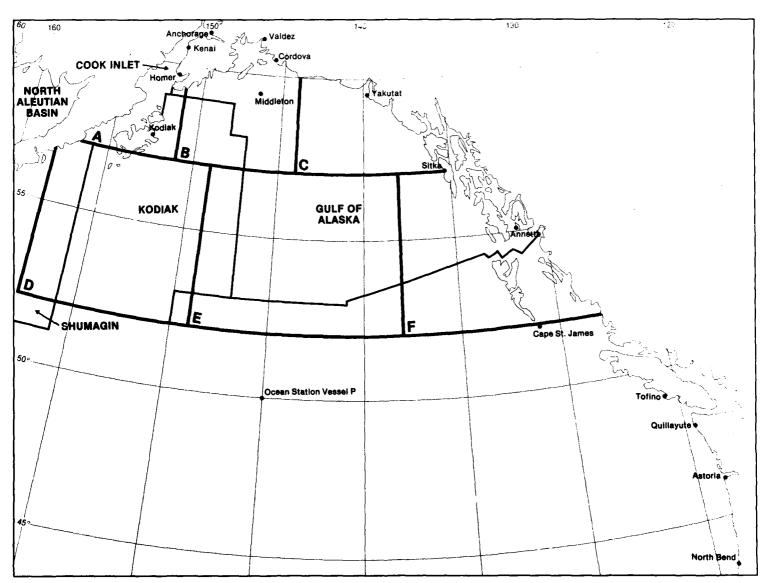
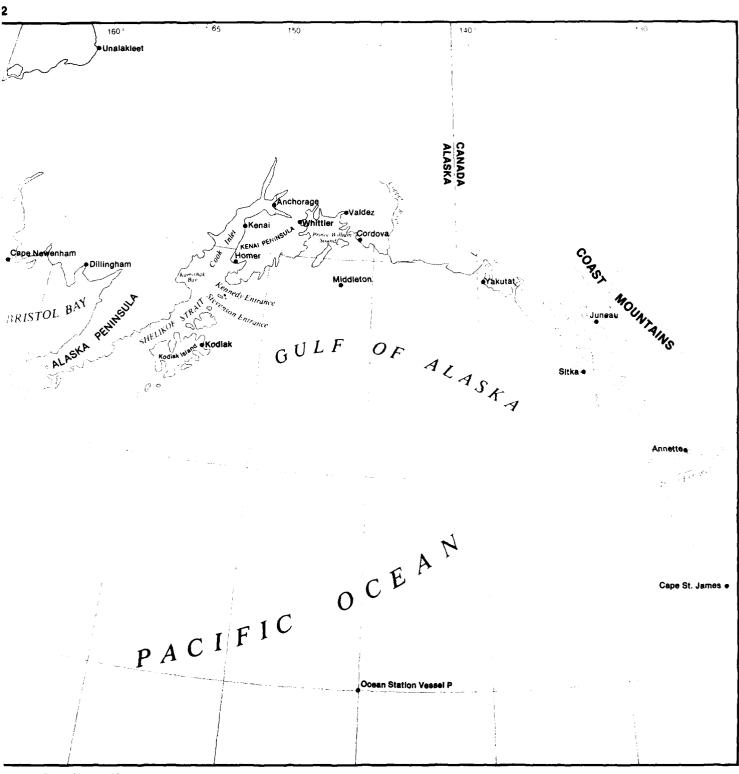


Figure 1. MMS Lease Sale Areas



igure 2. Place Names Map

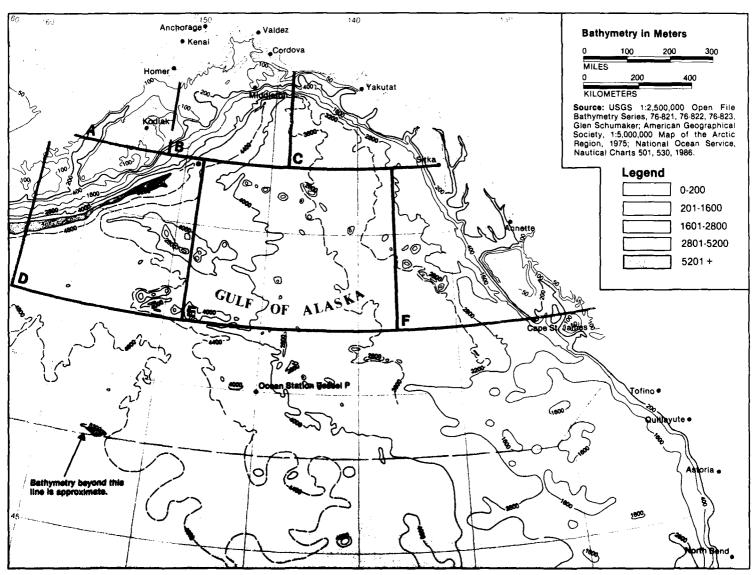


Figure 3. Bathymetry

### **Currents of the Gulf of Alaska**

The North Pacific Current, an extension of the Kurishio, impinges on the west coast of North America and separates into the southward flowing California current and the relatively warm, northward flowing Alaska Current. The former flows along the Oregon-California coast, whereas the latter flows into the Gulf of Alaska. The volume transport in these two currents is about the same; 10 to 15 x 106m³/s (Sverdup, Johnson, and Fleming 1942). It is probably dependent on the transport of the North Pacific Current and local forcing at the point of separation. Local forcing includes wind stress, wind stress curl, and bathymetry.

The broad northward flow along the British Columbia and Alaska coasts is forced to turn westward as it approaches the head of the Gulf of Alaska (Dodimead, Favorite, and Hirano 1963). The Alaska Current undergoes a transition from an eastern boundary current along the west coast of North America into a zonal current in the northern Gulf of Alaska (Verones 1973; Royer 1981). It narrows toward the western side of the gulf due to western intensification (Stommel 1964). The flow is concentrated along the continental shelf break and generally follows the bathymetry with the majority occurring within 50-60 km of the shelf break near Kodiak (Royer and Muench 1977, Rover 1979a). Maximum winter velocities in the Alaska Current have been measured in excess of 60 cm/s and occasionally in the range of 80-100 cm/s. Speeds in excess of 120 cm/s have been measured directly by current meters near the shelf break.

This northwestward flowing Alaska Current is the northern arm of the Pacific Subarctic Gyre, a cyclonic, wind-driven gyre which occupies the Gulf of Alaska and results in a northward shelf break flow. At its western end, it acts as a return flow for the wind curl-driven Sver drup transport in the Gulf. About 500 km downstream of Cape Yakataga, 50 km offshore, the flow intensifies to form a western boundary current where the coastline dips southward (Reed et al. 1980). This section of the current is called the Alaska Stream. The deep, narrow, asymmetric velocity profile in the Alaska Stream results from vorticity conservation (Favorite 1967).

Near Yakataga, winter intensification of the Aleutian Low leads to strong southeasterly winds, onshore Ekman transport, and downwelling (Royer 1975). In summer, the North Pacific High dominates. The lighter, more variable winds produce a relaxation of the coastal convergence.

Wind stress in the Gulf of Alaska has a strong annual cycle. Long-term, integrated, total, wind-driven transports into the Gulf of Alaska vary from 20 x 10<sup>6</sup> m<sup>3</sup>/s in winter to approximately 5 x 10<sup>6</sup> m<sup>3</sup>/s in spring and summer, with considerable year-to-year variations (Ingraham, Bakun, and Favorite 1976). The baroclinic transport, however, does not show as strong a seasonal variability as might be expected.

Spatial changes in transport in the Alaska stream occur via three major mechanisms: (1) loss of water to the south or by recirculation around the Alaskan gyre, (2) gain of water from the south (subarctic current) usually west of 175°W, or (3) loss of water to the north through the passes in the western Aleutians. This recirculation rarely occurs east of about 155°W.

Relative to 1000 db, the surface baroclinic speed in the Alaska Current is approximately 25 cm/s. No seasonal change in the northward flow, nor winter intensification, has been observed off the coast of British Columbia, Rover (1979) detected the presence of an annual cycle in the Alaska Current transports by sampling uniformly and repeatedly along transects designed to measure transport. Year-to-year variations may well override the seasonal cycle, since the range of transports in any given month might exceed the annual signal. No seasonal shift in the position of the Alaska Current has been readily observed (Royer 1978, 1979). Maximum speeds in excess of 100 cm/s have been estimated and typically more than 80% of the transport is within 60 km of the shelf break. Near Kodiak Island, where the Alaska Current behaves as a narrow high-speed jet, maximum current velocities can reach 200 cm/s.

Near Kod ak the Alaska Current is approximately 75 km wide and generally follows the shelf break (Royer 1979a). This flow is characterized by a low salinity surface layer and a subsurface temperature maximum of approximately 5.5 °C. The current appears to be more organized in the western portion of the gulf. East of Middleton Island this current is a broad, weak, westward flow (Muench et al. 1978). Satellite photos depict wide, unorganized flow at the head of the gulf and a narrow-

ing toward Kodiak. Overall, surface waters the Alaska Current remain cohesive for hi dreds or, possibly, thousands of miles.

#### Shelf Break Flow

Circulation near the shelf break can depicted as generally following the isobatt with frequent eddies and meanders. Ha (1979) suggested that anticyclonic shelf bre fluctuations are associated with eddies in t Alaska Current, Bathymetry is all important eddy formation, which intensifies in t autumn. These eddies propagate eastward the shoreward side of the Alaska Current, i pinging on the continental shelf a sometimes getting trapped. Rotational spee vary from 10 to 50 cm/s. Weak flow and hi variability are present to the north of the stro Alaska Current, Some short-term fluctuation and occasional reversals have been observin this region. Shoreward of the shelf break c culation decreases in magnitude. The bounda between this mid-shelf upwelling and the edu infested region closer to the shelf break is r distinct. It is likely that many of the eddies meanders can temporarily enter this region Mid-shelf flow, which follows botto topography to a great extent, may be int enced by fluctuation to the south in the Alas Current or to the north in the Alaska Coas Current. Near Yakutat and Icy Bay, a troil which extends from the shelf break to with tens of kilometers of the shore causes flow be diverted shoreward, with easterly flow ocsionally occurring. Similar diversion occurs the location of other troughs between Yaku and Kayak Island.

The Kayak Island/Middleton Island syst splits the shelf circulation into coastal bo dary and shelf break components, with meandering flow between them. Interact takes place between the coastal flow and Alaska Coastal Current. Meandering shelf fl is present on the east side of Kodiak Island

In the vicinity of Kayak Island, the n shelf region disappears and only the coas and shelf break currents remain. Mid-shelf culation reappears west of Kayak Island in presence of a large circular trough. The hi shoal around Middleton Island blocks the f. and forces it to the nearshore and offshore culation. Immediately west of Middle another canyon extends from the shelf breal Prince William Sound.

A permanent, anticyclonic, eddy-like feature dominates the region to the west of Kayak Island. Speeds typically range from 15 to 30 cm/s at the surface. Inshore of the Kayak Island eddy, the outflow of the Copper River creates a longshore (westward) transport toward Prince William Sound. To the west of Middleton Island, the mid-shelf circulation is characterized by cross-shelf flow which can be both onshore and offshore depending on local conditions. A trough here serves as an avenue for deep water exchange between the central gulf and Prince William Sound.

## THE ALASKA COASTAL CURRENT AND KENAI CURRENT

Precipitation throughout the northern Gulf of Alaska coastal regions results in alongshore accumulation of fresh water from the point where the North Pacific Current splits to form the Alaska and California Currents. This means that precipitation and runoff from Washington, British Columbia, and southeast Alaska are important to coastal circulation in the northern Gulf of Alaska. Precipitation is the dominant factor in setting up a vertical density gradient, which is converted to a horizontal gradient through wind stress-induced coastal convergence. It is these horizontal density gradients which drive the baroclinic, geostrophic currents.

Precipitation in the northern Gulf adds approximately 2-3 m of fresh water to the surface coastal waters in a 12-month period. River runoff accounts for another 2-3 m, input on a seasonal basis; maximum in autumn and minimum in winter. A very large volume of fresh water enters the system . t a high rate along the entire length of the Guli Coast, from British Columbia to Kodiak Island. The contribution of freshwater influx to the observed month-tomonth changes in dynamic height reveals excellent agreement from April through September. In winter, when the freshwater input decreases to very small values, wind stress increases and causes greater coastal convergence. Thus, while the hydrologic cycle produces a rapid drop in dynamic height in the fall, winter wind stress forces lower density water to the coast, which keeps the dynamic height high. This relatively high dynamic height may also be due to advection of fresh water from southern Alaska (Royer 1979).

A narrow, intense coastal current extending from southeast Alaska to Kodlak Island results from the density gradient created by

freshwater runoff. The current is modified by wind stress (from predominantly easterly winds) which produces downwelling conditions throughout most of the year. From the Copper River/Prince William Sound area through the Shelikof Strait and westward to the end of the Alaska Peninsula, this narrow coastal current continues. The western segment of flow has been called the Kenai Current (Schumacher et al. 1982; Schumacher and Reed 1980).

Since the total extent of the current extends more than 2000 km along the entire gulf coast of Alaska, it is now known inclusively as the Alaska Coastal Current. Royer (1980) observed this current to range from only 5 to 10 km wide, which differs from earlier estimates of 20 to 25 km. Schumacher and Reed (1980, 1986) estimated the width of the western segment to range from 10 to 25 km, a band which remains within 25 km of the shore.

The coastal current is driven by a crossshelf pressure gradient whose baroclinic component responds to annual freshwater flux. The barotropic pressure gradient component responds to seasonally varying wind stress; due to the characteristics of this forcing. however, the barotropic component augments flow only in winter. The flow has baroclinic, barotropic, and Ekman transport components. Baroclinic current reversals are possible, but the westward barotropic current and deeper reference level cause a net westward flow. Inner and outer shelf dynamic processes appear to be decoupled about 50 km offshore. Rover et al. (1979) suggested that cross-shelf ageostrophic flow may result from a combination of off-shelf Ekman flow in the upper layer and entrainment of water from below during the summer months, but not during winter wind stress conditions. The baroclinic flow in this current ranges from 15 to 70 cm/s relative to the bottom. Even higher current speeds are observed, in localized regions, on the order of 100-150 cm/s.

The coastal current or jet originates somewhere along the British Columbia/southeast Alaska border near significant sources of freshwater input. West of Seward, the annual rainfall rate decreases dramatically and relatively little additional freshwater enters the system, with the exception of sources in Cook Inlet. West of Kayak Island, the coastal current splits into a nearshore portion which enters Prince William Sound, and an offshore portion, which flows south of Middleton Island. The nearshore current is renewed with additional runoff, whereas the offshore jet is not.

The fresh water is mostly confined to the top layers (50-100m) and nearshore regions (via wind stress) which increases the baroclinic component. During most of the year onshore transport and downwelling are present, especially in fall and winter. Offshore transport in the lower layers can be compensated by onshore Ekman transport in the upper layers. Each of these processes has a lower layer of comparable thickness that moves in the opposite direction of the upper layer. Downwelling is phased so that it lags the maximum freshwater discharge by approximately three months; however, the maximum baroclinic transport remains in phase with freshwater discharge (Royer 1979).

In summary, the most significant effects on circulation on the continental shelf in the northern Gulf of Alaska are: (1) wind and wind stress, (2) freshwater runoff and precipitation, (3) forcing by the Alaska Current, and (4) bathymetry, which steers the flow.

Along the Kenai stretch of the Alaska Coastal Current formerly known as the Kenai Current, Schumacher and Pearson (1980) observed a narrow band, 15 to 30km wide, with a much iower salinity than adjacent shelf waters. The baroclinic flow along this section is approximately 1 x  $10^6$ m³/s during the autumn freshwater maximum and decreases to about  $0.3 \times 10^6$  m³/s at other times.

A cross-shelf pressure gradient with a strong baroclinic component responds to the annual freshwater flux. The barotropic pressure gradient component responds to the seasonally variable wind stress. The barotropic component of the wind stress forcing augments winter flow only when the barotropic component may equal the baroclinic component.

The Kenai stretch of the coastal current probably follows the 183-meter depth contour across the shelf southwest of Kodiak Island. It extends from the Copper River/Prince William Sound region westward through Shelikof Strait. Two passages, Kennedy Entrance, to the north along the Kenai Peninsula, and Stevenson Entrance along the north shore of Afognak Island, provide entry of flow to Shelikof Strait from the coastal and shelf break regimes. To the north, Shelikof Strait connects with lower Cook Inlet. Flow in Shelikof Strait is predominantly to the southwest at speeds which vary due to season and localized meteorological forcing.

During the winter of 1978-79 flow in Shelikof Strait was always toward the southwest, with typical speeds of 20-30cm/s. Higher speeds were present during mid-October to early November 1978, with a maximum of 70cm/s (Schumacher and Reed 1980). A flow reversal was observed in early June 1979. A few reversals occurred in Stevenson Entrance over the summer. Flow is stronger and more persistent through Kennedy Entrance, while Stevenson Entrance is more responsive to wind forcing. Speeds in Kennedy Entrance are approximately 25cm/s and are approximately 40cm/s near the Kenai Peninsula.

In Shelikof Strait winter speeds are about 20-30cm/s, and in mid to late autumn, they are as high as 70cm/s. Tidal speeds in Kennedy Entrance are approximately 65cm/s.

#### **Prince William Sound**

The coastline of the northern Gulf of Alaska contains numerous fjords, embayments, and other estuaries, including Prince William Sound. Water in these embayments is freshened at the surface via runoff and precipitation, and some salt is added via exchange with Gulf of Alaska waters.

#### Legend

Gulf of Alaska surface currents. Numbers indicate mean speed in cm/s. Arrows depict flow as follows:

Prevailing current direction

← — Variable current direction

Gulf of Alaska surface currents synthesized from Dodimead and Favorite 1962; Dodimead and Pickard 1967; Evans et al. 1972; Favorite, Ingraham and Fisk 1975; Mathews and Mungall 1972; Royer 1980; and U.S. Navy 1977.

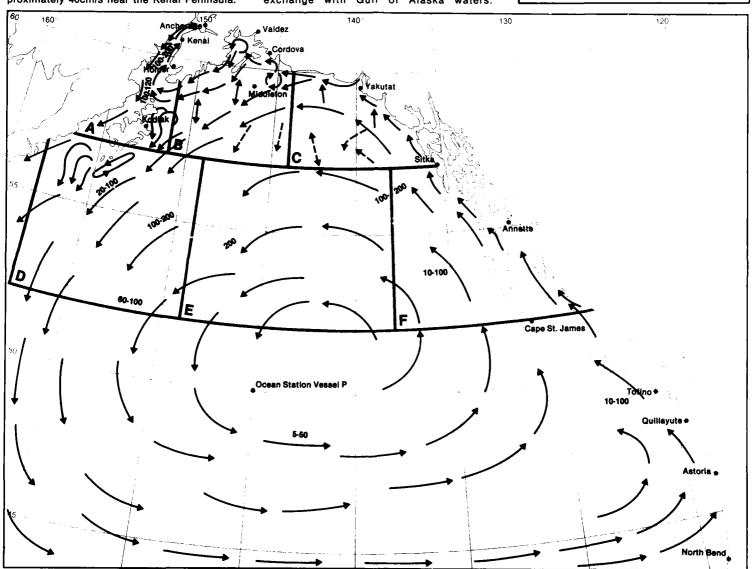


Figure 4. Sea Surface Currents - Summer

Hydrography and current meter observations classify Prince William Sound as an inland sea with inflow at Hinchinbrook Entrance and outflow through Montague Strait. Within the sound there is a cyclonic sense to the circulation and considerable surface dilution from runoff. Short-term current reversals have been observed at Hinchinbrook, but none at Montague Strait. Some large-scale events in the sound appear to be related to atmospheric pressure system changes (Royer 1980). Water exchange in all the regional estuaries depends upon sill depth (Muench and Heggie 1978). Reeburgh, Muench, and Cooney (1976) found that the exchange of water with adjacent sea water occurred on a discontinuous basis.

#### **Cook Inlet**

Clear oceanic water enters the inlet from the southeast during flood tide at Seldovia, progresses northward along the eastern side with minor lateral mixing, remains a distinct water mass to the latitude of Kasilof-Ninilchik, then mixes extensively with the turbid inlet water in the area near the forelands. Ebbing water moves south primarily along the north and west shore, and a distinct zone between the two water masses forms mid-inlet south of Kalgin Island. Turbulence and vertical mixing appear to be most prominent along the east shore, while stratification is pronounced in Kamishak and Kachemak bays, especially during periods of high freshwater runoff. Complex circulation patterns were observed near Kalgin Island because, at this location, ebbing and flooding waters meet, current velocities are high, and coastline configuration causes a strong, cross-inlet current. Several localized circulation patterns were observed by Gatto (1976): a clockwise backeddy was observed during flood tide in the slack water area west of Clam Gulch, a counterclockwise current north of the forelands during ebb tide at Anchorage, and the movement of sediment-laden, ebbing water past the west side of Augustine Island, out of the inlet, around Cape Douglas, and through Shelikof Strait.

Currents in Cook Inlet are of moderate velocity. In the regions of the forelands they reach a mean maximum velocity of 200 cm/s, with peak maximum velocities exceeding 330 cm/s at monthly tidal extremes. The tidal currents dominate circulation in Cook Inlet. Bathymetry, morphology, and freshwater drainage, combined with tidal effects are criteria used to divide the inlet into three segments for purposes of discussing circulation. The upper inlet lies east of a line extending northward from Point Possession and includes both Knik and Turnagain Arms. The middle inlet includes waters from the upper inlet southwestward to the latitude of Tuxedni Bay. The lower inlet extends from Tuxedni Bay to the mouth of Cook Inlet. This is not the same as the usual division into upper and lower inlet at the forelands.

Waters of the upper inlet, because of the large tidal fluctuations in a shallow, narrow basin, are well-mixed laterally, longitudinally, and vertically with each tidal cycle. In summer, with a large inflow of glacial meltwater in tributary streams, there is a net outward move-

ment of upper inlet waters of as much as a mile with each tidal cycle. In winter, however, with reduced runoff in tributary streams, there is practically no net outflow from the upper inlet and water merely sloshes back and forth with each tide (Murphy et al. 1972).

The middle inlet is characterized by a net inward movement of saline oceanic water up the eastern shore and a net outflow of fresh runoff water from Knik Arm and the Susitna River along the western shore. These water masses are well mixed vertically because of turbulence caused by swift currents and high coriolis force. Lateral separation is maintained throughout the mid-inlet, resulting in a shear zone between the highly saline incoming water on the east side and the less saline waters on the west.

Some of the highest tidal velocities occur in the mid-inlet (Matthews and Mungall 1972), where they reach an average maximum velocity of 200 cm/s and exceed 300 cm/s at extreme tides (NOAA 1971). Localized velocities of 400 cm/s are known in several areas. Higher than average velocities can be expected in the deeper channels.

In the lower inlet, water masses of differing salinity retain their separation. In the western sector, a vertical stratification develops with colder, saline, oceanic water underlying warmer, less saline inlet waters. At the latitude of Tuxedni Bay (60°12'), the rising bottom of the basin forces the deeper oceanic water to the surface during tidal inflow, where it mixes with inlet water.

#### Legend

Gulf of Alaska surface currents. Numbers indicate mean speed in cm/s. Arrows depict flow as follows:

Prevailing current direction

← — Variable current direction

Gulf of Alaska surface currents synthesized from Dodimead and Favorite 1962; Dodimead and Pickard 1967; Evans et al. 1972; Favorite, Ingraham and Fisk 1975; Mathews and Mungall 1972; Royer 1980; and U.S. Navy 1977.

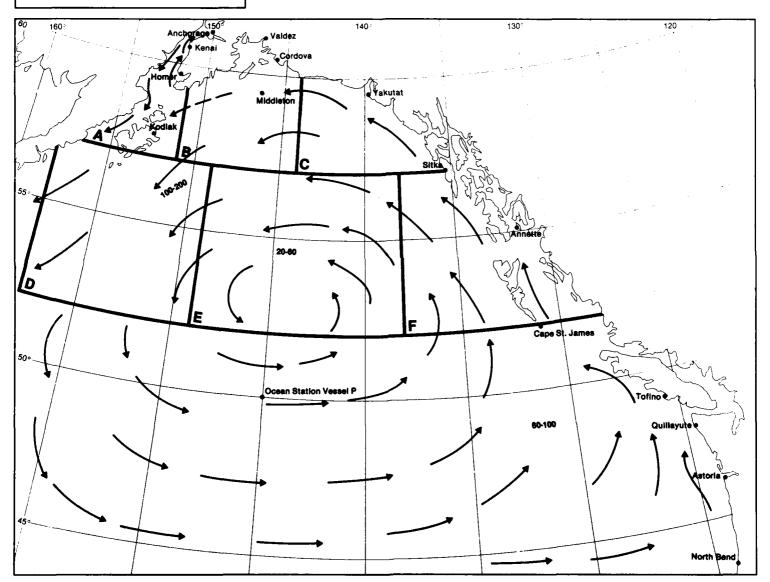


Figure 5. Sea Surface Currents — Winter

#### Sea Ice

## Floating Glacial Ice and Winter Bay Ice

Floating or grounded glacial ice in the forms of icebergs, bergy bits, or growlers concentrates in Frederick Sound, Stevens Passage, Cross Sound, and Icy Strait in southeast Alaska and in Prince William Sound and some southern Kenai Peninsula bays in southcentral Alaska. Glacial ice may be encountered in these areas during any month of the year. Many of the floating and grounded icebergs are covered with mud and stones. causing them to resemble reefs or rocks awash. No calving tidewater glaciers exist south of Le Conte Glacier in southeast Alaska, within or west of Cook Inlet in southcentral Alaska, or along the west or north coasts of Alaska.

Tides in southern Alaska affect the calving rates of tidewater glaciers. When the tide rises in a fiord, the large influx of water gives added buoyancy to the glacier terminus, often increasing the calving rate. At low tide the rate decreases. In some cases, glacier termini sit high and dry on sedimentary flats at low tide, discharging no icebergs into the water until the tide rises again.

During the rising tide with inbound tidal currents, iceberg drift is reduced, and most new icebergs remain near the glacier terminus. During retreating tide with outbound tidal currents, icebergs drift away from the glacier terminus into the main fiord. If winds are favorable during outgoing tides, some icebergs may drift beyond fiord mouths into open water.

Winter sea ice often forms in some of the upper bay areas, especially where bays and fiords are indented deeply into the coastal mountains. Ice floes from some bays occasionally drift out of bay entrances into the open sea, especially in the spring. Bay sea ice is particularly notable in Glacier Bay and in the bays of western Prince William Sound.

The following information on icebergs and bay ice describes known conditions of iceberg concentration and drift and bay ice conditions for the southeast and southcentral coasts of Alaska (U.S. National Ocean Survey 1981, 1982; Field 1975; Meier et al. 1980; Post 1977).

#### Frederick Sound

Glacial ice from Le Conte Glacier in Le Conte Bay is generally present in the east arm of Frederick Sound, and at times in large quantities. Le Conte Bay is often inaccessible because of floating ice, and large icebergs are a menace to navigation from Camp Island to Frederick Point. The ice generally follows the north shore of the sound as far as the entrance to Thomas Bay. Under certain conditions of wind and weather, ice may drift as far as the Sukoi Islets, and it may also be found at Cape Strait and Turnabout Island. Occasionally, a few stray pieces of ice work into Wrangell Narrows as far as Green Point.

#### **Stevens Passage**

Glacial ice is discharged from Dawes Glacier in Endicott Arm and from Sawyer and South Sawyer glaciers in Tracy Arm. Tracy Arm is often clogged by small icebergs for several miles. At times South Sawyer Glacier is very active, and huge blocks of ice fall off its face into very deep water. These set up waves which have been observed as high as 8 m. Sawyer Glacier ordinarily is much less active.

Glacial ice is always present in Holkham Bay, and is also prevalent in Stevens Passage off the entrance to Holkham Bay. Occasional pieces of ice may occur in all parts of the passage.

In **Taku Inlet, Taku Glacier** is advancing and has now pushed up the moraine ahead of its face, and ice is no longer discharged in large quantities. A few small chunks of ice occasionally drift down the inlet, but these are rarely more than a meter wide.

#### **Cross Sound and Icy Strait**

Glacial ice in varying quantities is prevalent in Cross Scund and Icy Strait throughout the year. The ice comes from Glacier Bay, and most of it is usually found at Glacier Bay entrance and from there to the Inian Islands. It is quite thick in Cross Sound, and ice has been seen 16 to 24 km seaward of Cape Spencer and as far east as Point Augusta. The pieces are large enough to make them navigational hazards. Ice at times piles up heavily along the shore from Point Adolphus to Eagle Point. Glacial ice may be found in small quantities in Icy Strait, mainly in winter. Some

of these isolated inebergs are large enough to be dangerous to small and medium-sized craft.

#### **Glacier Bay**

Numerous discharging glaciers enter and calve into the bay, including McBride, Riggs, Muir, Plateau, Grand Pacific, Margerie, Toyatte, Johns Hopkins, Gilman, Hoonah, Kashoto, Lamplugh, and Reid glaciers. Glacial ice is always present, sometimes in enormous quantities, in Muir, Tarr, and Johns Hopkins inlets. The quantity of ice discharged into Glacier Bay varies from year to year and is greatly affected by seismic activity and local weather. Variations in ice conditions throughout the bay follow no absolute predictable pattern. Water circulation near the glaciers is very erratic, and fresh waters enter at all depths. Swirls and eddies are common and cause the ice to move slowly in all directions. After a dry period, rain causes heavy calving and dense ice packs. When ice falls from the faces of the glaciers, it may create waves as high as 10 m.

Beginning in January, Glacier Bay at times freezes as sea ice in its upper reaches and in the bays and inlets where much fresh water is discharged. In the upper end of all bays and inlets, the sea ice never gets thick during winter freezeover, and it either thaws or is broken by the winds and waves. The greatest amount of float ice is found in spring, and it lessens as the season advances. In June the sea ice in front of the glaciers appears to be solid at the head of the bay. More ice comes down the bay on the large tides than the small, and winds also exert a marked influence on ice movements.

Occasionally in the winter the great mass of ice from Muir Glacier is congested in Muir Inlet as far as Wachusett Inlet and in the summer as far south as the Marble Islands. Icebergs are frequently in Mariposa Sound, and occasionally a few small bergs are south of Willoughby Island

The ice from Lamplugh Glacier and Reid Glacier is quite scattered. Tarr Inlet almost never has a dense ice pack except at the face of Margerie Glacier and Grand Pacific Glacier. Usually ice cover in Johns Hopkins Inlet is dense in winter as far east as Lamplugh Glacier. It covers only the southwest leg of the inlet in the summer. Ice may occasionally be thick as far southeast as Mariposa Sound.

#### Lituya Bay

Lituya Bay has never been known to freeze over in winter, but icebergs from North Crillon, Cascade, and Lituya glaciers can always be found in the upper parts of the bay. With northeast winds these icebergs often reach the entrance to the bay before melting. Floating ice is usually the heaviest in October.

#### Yakutat Bay

Floating glacial ice in Yakutat Bay comes from East Nunatak Glacier in Nunatak Fiord and Turner and Hubbard glaciers in Disenchantment Bay. Turner and Hubbard glaciers are especially active. Turner Glacier flows into the west side of Disenchantment Bay. The position of the a acier terminus varies, and at times a moraine bar is exposed at low tide some distance off the ice cliffs. Hubbard Glacier, the largest tidewater glacier in Alaska, discharges innumerable icebergs into the head of the bay along a 10-km-long ice cliff. Large waves are caused by calving from the glacier. While this atlas was in preparation, a recent advance of Hubbard Glacier extended its terminus completely across the mouth of Russel Fiord, blocking it and creating a glacier-dammed lake in the former fiord. The lake has since drained but may form again if Hubbard Glacier advances.

Ice is usually quite thick in Disenchantment Bay as far south as Point Latouche but at times is scarce. Ordinarily, the ice banks on the west side of Yakutat Bay as far south as Blizhni Point, but at times heavy concentrations can be troublesome throughout the area. Scattered bergs usually are found in lower Yakutat Bay, and occasional drifts of ice find their way as far south as Ocean Cape and Point Manby.

#### Icy Bay

Floating ice in the bay originates from the actively calving **Tyndall, Yahtse,** and **Guyot** glaciers at the head of the bay. The part of the bay north of 60 degrees north latitude is generally filled with ice. In the southern part of the bay the ice usually forms long tongues of loosely packed ice. Icy Bay is normally ice free from the east shore west to the centerline of the bay. The size of the ice ranges from a few widely spaced bergs of more than 60 m long and 15 m high to many small bits less than 1 m long. Riou Bay remains relatively free of ice in summer. During and shortly after periods of strong winds the upper bay is clear of ice, sometimes to the face of the glaciers.

#### Prince William Sound

Glacial ice is rarely found in the open waters of Prince William Sound, although ice is discharged by Columbia Glacier, north of Glacier Island, and is driven into the sound by north winds. During very cold weather sea ice sometimes forms in the arms of the sound which reach well into the mountains. At times it is heavy enough to impede navigation, especially near the heads of the arms.

**Shoup Bay**, in Port Valdez, has occasional floating ice discharged from **Shoup Glacier**. Some of the ice escapes into Port Valdez when the winds and tides are favorable.

Columbia Glacier closes the head of Columbia Bay with a huge ice cliff 4 km long and as much as 90 m high, from which icebergs are constantly being discharged. Blocks of ice are sometimes thrown great distances when falling

seracs (ice towers) strike the water. The glacier is beginning a phase of rapid retreat as its terminus recedes from a submarine moraine into deeper water. Its iceberg discharge is increasing and may become dramatically greater in coming years as the glacier retreats back into its fiord. Although this will probably increase iceberg discharge into Prince William Sound for a number of years, the retreat of the glacier several miles back into its fiord will probably eventually decrease iceberg drift into the Sound.

The submarine moraine creates a shoal that completely crosses the bay in front of the glacier. The shoal temporarily prevents larger icebergs from drifting away from the face of the glacier. At this stage of the retreat, a line of bergs grounded on the shoal slows the movement of meltwater away from the glacier in the winter, causing the formation of an apron of sea ice extending from the glacier terminus to

Figure 6. Calving Tidewater Glaciers in Alaska (numbered from south to north)

#### Frederick Sound

1. Le Conte Glacier, in Le Conte Bay

#### Stevens Passage

- 2. Dawes Glacier, in Endicott Arm
- 3. South Sawyer Glacier, in Tracy Arm
- 4. Sawyer Glacier, in Tracy Arm
- 5. Taku Glacier, in Taku Inlet

#### Glacier Bay

- 6. McBride Glacier, in Muir Inlet
- 7. Riggs Glacier, in Muir Inlet
- 8. Muir Glacier, in Muir Inlet
- 9. Plateau Glacier, in Wachusett Inlet
- Grand Pacific Glacier, in Tarr Inlet
   Margerie Glacier, in Tarr Inlet
- 11. Margerie Glacier, in Tarr Inlet
  12. Tovatte Glacier, in Johns Hopkins Inlet
- 13. Johns Hopkins Glacier, in Johns Hopkins Inlet
- 14. Gilman Glacier, in Johns Hopkins Inlet
- 15. Hoonah Glacier, in Johns Hopkins Inlet
- 16. Kashoto Glacier, in Johns Hopkins Inlet
- 17. Lamplugh Glacier, in Johns Hopkins Inlet
- 18. Reid Glacier, in Reid Inlet

#### Cross Sound

19. Brady Glacier, in Taylor Bay

#### Northeast Gulf of Alaska

20. La Perouse Glacier

#### Lituya Bay

- 21. North Crillon Glacier
- 22. Cascade Glacier
- 23. Lituya Glacier

#### Yakutat Bay

- 24. East Nunatak Glacier, in Nunatak Fiord
- 25. Hubbard Glacier, in Disenchantment Bay
- 26. Turner Glacier, in Disenchantment Bay

#### lcy Bay

- 27. Tyndall Glacier
- 28. Yahtse Glacier
- 29. Guyot Glacier

#### Prince William Sound

- 30. Shoup Glacier, in Shoup Bay on Port Valdez
- 31. Columbia Glacier, in Columbia Bay
- 32. Meares Glacier, in Unakwik Inlet
- 33. Yale Glacier, in College Fiord on Port Wells
  34. Harvard Glacier, in College Fiord on Port Wells
- 34. Harvard Glacier, in College Fiord on Port Wells35. Smith Glacier, in College Fiord on Port Wells
- 36. Wellesley Glacier, in College Fiord on Port Wells
- 37. Coxe Glacier, in Barry Arm on Port Wells
- 38. Barry Glacier, in Barry Arm on Port Wells 39. Cascade Glacier, in Barry Arm on Port Wells
- 40. Serpentine Glacier, in Harriman Fiord on Port Wells
- 41. Surprise Glacier, in Harriman Fiord on Port Wells
- 42. Harriman Glacier, in Harriman Fiord on Port Wells
- 43. Blackstone Glacier, in Blackstone Bay
- 44. Beloit Glacier, in Blackstone Bay
- 45. Nellie Juan Glacier, in Derickson Bay on Port Nellie Juan
- 46. Chenega Glacier, in Nassau Fiord on Icy Bay
- 47. Tiger Glacier, in Icy Bay

#### Alalik Bay

- 48. Aialik Glacier
- 49. Holgate Glacier, in Holgate Arm

#### Harris Bay

50. Northwestern Glacier, in Northwestern Lagoon

#### Nuka Bay

- 51. McCarty Glacier, in McCarty Fiord
- 52. Dinglestadt Glacier (eastern tongue), in McCarty Fiord

the moraine shoal. Continual erosion of the shoal by dragging iceberg keels may eventually allow the escape of increasingly larger bergs.

At any time of the year, but especially in the summer and fall months, icebergs and brashice may completely fill Columbia Bay and block the passages and coves north of Glacier Island. Ice may be expected, depending on the winds, from Bligh Island to Bald Head Chris Island and as far south as Storey Island. Large bergs may be found at any time along the north shore from Port Freemantle to Fairmount Island.

Meares Glacier lies at the head of Unakwik Inlet. The glacier discharges large quantities of small icebergs.

There are numerous calving glaciers in Port Wells, including Yale, Harvard, Smith, and Wellesley glaciers in College Fiord, and Coxe, Barry, Cascade, Serpentine, Surprise, and Harriman glaciers in Harriman Fiord. Icebergs are commonly seen in these fiords, with masses of large bergs near the calving glacier snouts, but ice rarely reaches the entrance of Port Wells.

**Blackstone** and **Beloit** glaciers in **Blackstone Bay** discharge icebergs at the head of the bay, and a hanging portion of Northland

Glacier occasionally drops bergs off a nearvertical rock cliff into the bay. There are generally numerous small icebergs in the head of the bay, but ice remains confined to the bay.

Nellie Juan Glacier at the head of Derickson Bay in Port Nellie Juan is the most active glacier in that water body, and the bay is often filled with small icebergs.

Chenega Glacier in Nassau Fiord and Tiger Glacier in Icy Bay keep Icy Bay filled with ice most of the time. Ice from these glaciers drifts into Knight Island Passage, and considerable quantities of ice have been seen in the passage south of the Pleiades Islands. It drifts east between Point Countess and Chenega Island as far east as Point Helen and the north entrance to Latouche Passage. The Bainbridge Glacier in Port Bainbridge has discharged icebergs in the past, but now terminates on an outwash plain just above high tide.

All the upper bays in this vicinity are likely to freeze over with **sea ice** in cold weather. Ice floes from Icy Bay at times drift into the area west of the Pleiades Islands and north into Dangerous Passage. The discharge is continuous but irregular in volume and is mainly to the southeast. When heavy, it blocks the en-

trance to Whale Bay and passes south of the Pleiades Islands. Isolated pieces of floe ice of considerable size frequently drift as far as Latouche Island. Ice floes have been known to pass south through Bainbridge Passage and then north into Prince of Wales Passage. No ice has been observed east of Delenia Island.

#### Aialik Bay

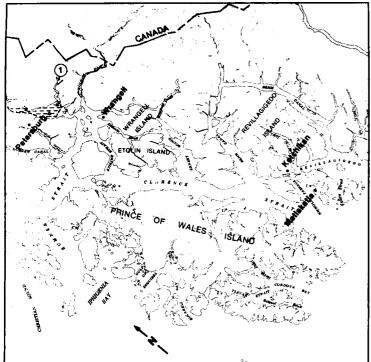
Ice is discharged into upper Aialik Bay by Aialik Glacier and into Holgate Arm by Holgate Glacier. Ice is frequently driven to Harbor Island by northerly winds. Holgate Arm and the entire bay above the bar are frequently filled with ice.

#### **Harris Bay**

Northwestern Glacier calves into upper Harris Bay. The upper part of the bay is usually filled with floating ice.

#### **Nuka Bay**

McCarty Glacier and the eastern tongue of Dinglestadt Glacier discharge occasional small icebergs into the East Arm.



## Figure 7.

## Floating Glacial Ice and Winter Bay Ice

#### **KEY**



Calving tidewater glacier terminus



Area where bergy water is normally encountered. Under certain conditions icebergs may drift further. See text for detailed ice conditions.

50 Nautical ➡ miles 50 Kilometers

Synthesized from Field 1975, Meier et al. 1980, U.S. National Ocean Survey 1981, 1982, and Post 1977.

#### Glacier number and name

- 1. Le Conte
- 2. Dawes 3. South Sawyer

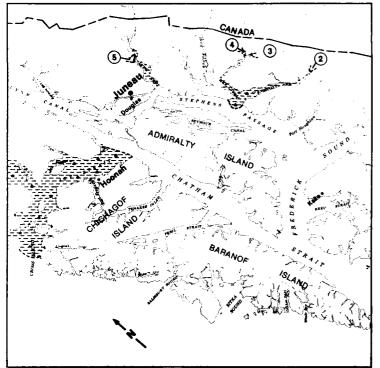
- 3. South Sawyer
  4. Sawyer
  5. Taku
  6. McBride
  8. Muir
  9. Plateau
  10. Grand Pacific
  11. Margerie

- 11. Margerie 12. Toyatte 13. John Hopkins 14. Gilman 15. Hoonah 16. Kashoto
- 17. Lamplugh 18. Reid

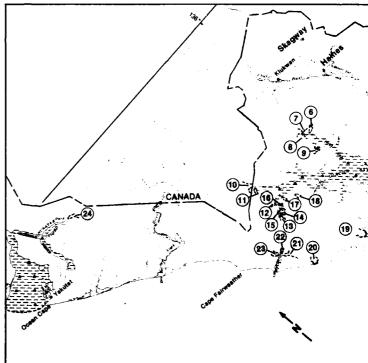
- 19. Brady 20. La Perouse 21. North Crillon 22. Cascade

- 23. Lituya 24. East Nunatak

1. Boca de Quadra to Thomas Bay



2. Thomas Bay to Cape Spencer



3. Brady Glacier to Yakutat Bay

#### **KEY**



Calving tidewater glacier terminus



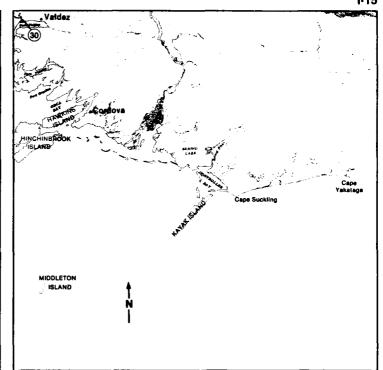
Area where bergy water is normally encountered Under certain conditions icebergs may drift further. See text for detailed ice conditions.

50 Nautical ■ miles 50 Kilometers

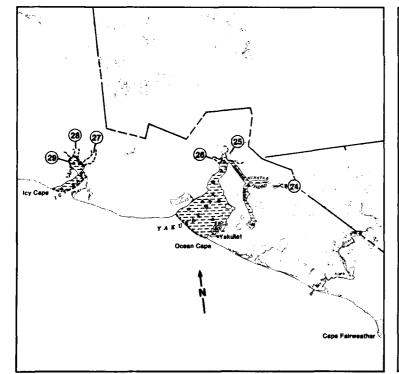
Synthesized from Field 1975, Meier et al. 1980, U.S. National Ocean Survey 1981, 1982, and Post 1977.

#### Glacier number and name

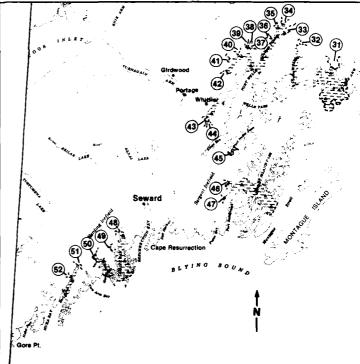
- 24. East Nunatak
  25. Hubbard
  26. Turner
  27. Tyndall
  28. Yahtse
  29. Guyot
  30. Shoup
  31. Columbia
  32. Meares
  33. Yale
  34. Harvard
  35. Smith
  36. Wellesley
  37. Coxe
  38. Barry
  39. Cascade
  40. Serpentine
  41. Surprise
  42. Harriman
  43. Blackstone
  44. Beloit
  45. Nellie Juan
  46. Chenega
  47. Tiger
  48. Nialik
  49. Holgate
  50. Northwestern
  51. McCarty
  52. Dinglestadt



5. Cape Yakataga to Port Valdez



4. Yakutat Bay to Icy Bay



6. Valdez Arm to Gore Point

#### Cook Inlet Ice

#### Ice Characteristics

The amount of ice in Cook Inlet varies greatly from one year to another. Dates of first significant ice (defined as 10 percent coverage at the Phillips Platform in the northern inlet) in the 17 most recent years that records have been kept varied from October 7 to December 17 (Figure 8). The mean date for first significant ice during that period was November 24 and the median date was November 20. There were several years when ice began to form for a few days in October but dissipated before there was significant coverage. Spring disappearance of significant ice was also quite variable, ranging from March 10 in 1981 to May 15 in 1972. The average date for termination of significant ice was April 8 and the median date

Some features of the immediate vicinity of Cook Inlet have quite an influence on the growth and decay of ice. Processes that work to cool the water to the freezing point are (1) radiational cooling, (2) influx of cold, fresh water from rivers, (3) snow falling on the surface and subsequent melting, and (4) cold air mass advection. Other processes tend to keep the waters of Cook Inlet warm and retard the formation of extensive ice.

Year	First Ice	Ice Free
69-70	Nov 18	Mar 23
70-71	Oct 17	May 7
71-72	Nov 23	May 15
72-73	Nov 13	Apr 10
73-74	Nov 18	Apr 6
74-75	Nov 24	Apr 9
75-76	Nov 12	Apr 10
76-77	Dec 17	Apr 9
77-78	Nov 20	Mar 18
78-79	Dec 16	Mar 31
79-80	Dec 12	Mar 26
80-81	Dec 6	Mar 10
81-82	Nov 20	Apr 19
82-83	Nov 29	Mar 21
83-84	Dec 14	Mar 20
84-85	Dec 17/1st rep.	Feb 13, 85*
		Apr 17
85-86	Nov 5	Apr 18
Average	Nov 24	Apr 8
Median	Nov 20	Apr 9
* Ice disappe	ared; then reappeared	2/13/85

Figure 8. First significant ice and ice-free dates for Cook Inlet for the winters of 1969 through 1986. (Data from National Weather Service)

Tidal range is high. Much of the inlet has a diurnal range of 10 m or more. Tidal flow provides an influx of relatively warm water twice a day and tends to move ice to warmer areas as the tide recedes. At any time during winter, air masses from the south with temperatures well above freezing can cover the area and cause the melting of a well-established ice cover. The eruption of Mt. St. Augustine volcano in 1976 caused a warming of the sea water and subsequent melting of an extensive portion of ice cover. The Kenai current, which flows from the Kennedy entrance to southern Cook Inlet and into the Shelikof Strait, limits lower Cook Inlet ice. The interaction of the warm current with tidal action limits ice formation south of Kachemak Bay.

#### Types of Ice

The ice in Cook Inlet comes from four different sources:

- 1. Sea Ice. This type forms in seawater, first developing a thin crust on the surface and growing through the addition of ice to the bottom of the surface layer. Sea ice is the predominant type of ice in Cook Inlet
- 2. **Beach Ice.** The large tidal range in the inlet accounts for the sudden appearance of a considerable amount of ice on the mud flats early in winter. The ebbing tide exposes the mud to cold air, freezing the upper layer of the mud. At flood tide, water in contact with the frozen mud also freezes. Growth may be as much as an inch or more a day. Generally, however, a thickness no greater than about 0.5 m is reached before the ice is floated free of the mud. Some beach ice is lifted higher on the beach and some is carried out into the inlet, where it grows much the same as sea ice.
- 3. Stamukhi. Observers have seen ice cakes thicker than 6 m on the mud flats. These result from beach ice which has broken free, been deposited higher on the mud flats, and frozen to the underlying mud. Ice floes floating toward the beach are caught on top of the higher piece of ice and, as the tide recedes, the overhanging pieces break off, leaving a stack of layered ice with nearly straight sides. This process is repeated many times, limited only by the height of the tides and the strength with which the original beach ice is frozen into the mud. On high tide, occasional stamukhi of massive proportions are carried into the inlet.

Stamukhi 6 m high, 9 m wide and 18 m long grounded on Middle Ground Shoal were observed by Pan American Petroleum Corp. personnel in 1964.

- 4. Estuary and River Ice. Freshwater ice forms during the winter in estuaries and rivers around Cook Inlet. The estuary ice grows in the same manner as sea ice but is much harder. River ice is unaffected by tidal action and remains in the rivers until spring breakup. At that time, a considerable quantity of river ice with thicknesses up to 2 m may be discharged into the inlet.
- K.A. Blenkarn (1966) of Pan American Petroleum Corporation obtained quantitative information on the movement of ice in Cook Inlet during the winter of 1964-65. His study indicated that ice tends to move out of the inlet at speeds varying between about 3 and 8 km a day. However, not all Cook Inlet ice follows this pattern. Much of the ice forms and decays near its point of origin, particularly in Knik and Turnagain Arms.

#### Air and Water Temperature

Seawater temperatures generally drop to the freezing point (-1.7 °C) in mid to late November. After ice forms the water temperature generally stays about the same until the ice disappears in March, April, or May. An exception was January 1976 when Mt. St. Augustine volcano erupted.

Air temperature, as shown by Anchorage data, are quite variable. A pattern often followed is a gradual cooling in the fall through mid or late December followed by a warming trend for variable periods of time in late December or January. Warming often occurs to the point where Cook Inlet ice nearly disappears. This phenomenon is referred to as the January thaw, which happens in more than 90 percent of the years. In the last 39 winter seasons. January was warmer than December in 15 of them. The colder December is, the more pronounced the January thaw seems. A cooling trend usually occurs in late January and February. The greatest difference was between December 1980 with a mean temperature of -17.3°C followed by January 1981 with a mean temperature of -0.3 °C, a total of 17 °C warmer than December.

The usual effect on the Cook Inlet ice is a gradual increase in ice from late November through December and January showing very

little increase or a slight decrease in ice followed by increasing ice in February. March usually shows a decrease in ice, and ice generally melts completely during April.

#### Map Discussion

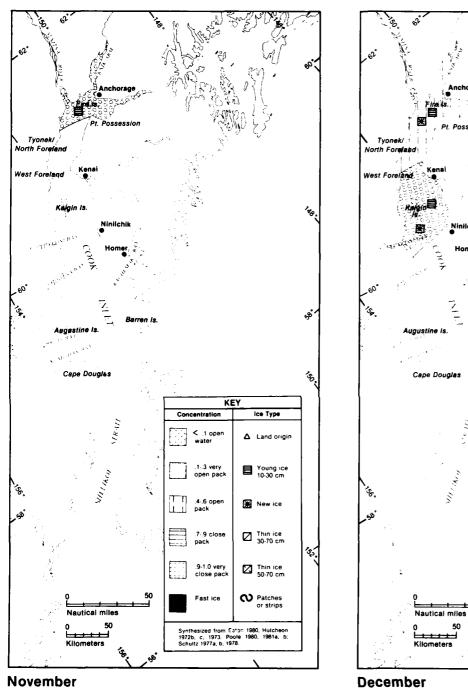
Cook Inlet Ice often first forms in October and later melts before significant ice of a more permanent nature forms in the latter half of November. Ice usually increases in coverage and thickness through most of December with open to close pack of new and young ice north of the Forelands and very open pack of new ice south to Ninilchik along the east shore of the

inlet and to Kamishak Bay along the west shore of the inlet. Most winter seasons a warming occurs in late December and early January. During the warming, ice shows little or no increase and in fact often decreases. In late January and February ice again increases in coverage and thickness. The ultimate ice extent, strength, and thickness is quite variable depending on the extent of the January thaw. Maximum thickness of the pack varies from less than half a meter to two meters.

In late February and March fast ice and black ice are often floated during high tide at several locations. Turnagain Arm beach ice enters the inlet near Fire Island and Kamishak Bay ice drits into the northern Shelikof Strait. Stamukhi, which had anchored to the tidal flats, also can be floated free in high tide and enter shipping lanes. Often in late March or April the only ice remaining is the large chunks of beach ice and stamukhi. All ice generally disappears in early April but some occasionally persists into May.

Data shown on the accompanying maps are for the latter half of each month. Maps show average or mean conditions. A particular year can be very different.

Figure 9. Cook Inlet Ice (November/December)



**December** 

Concentration

1 II 4-6 open

7 9 close pack

9 1 0 very close pack

Fast ice

Synthesized from Eaton 1980, Hutcheon 1972b. c. 1973 Poole 1980, 1981a b Schultz 1977a, b. 1978

Ice Type

Thin ice 30-70 cm

Thin ice 50-70 cm

Figure 10. Cook Inlet Ice (January/February)

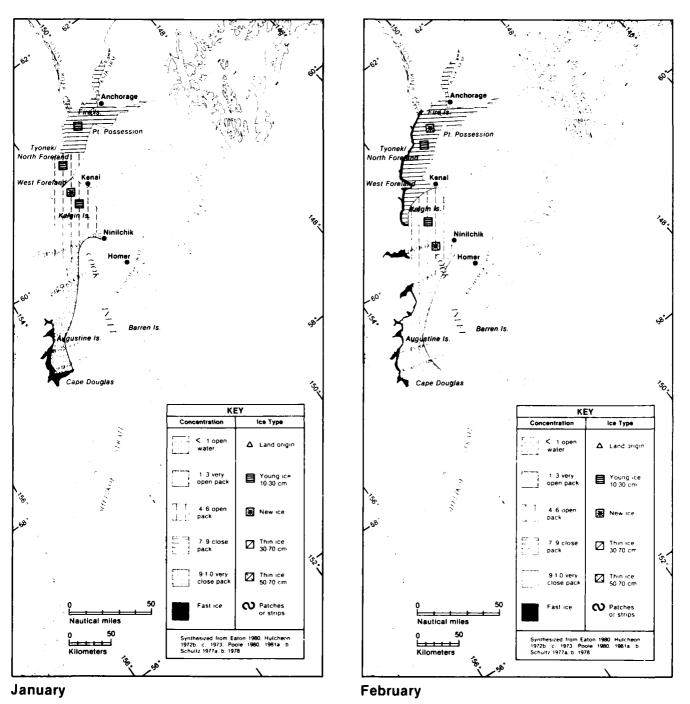
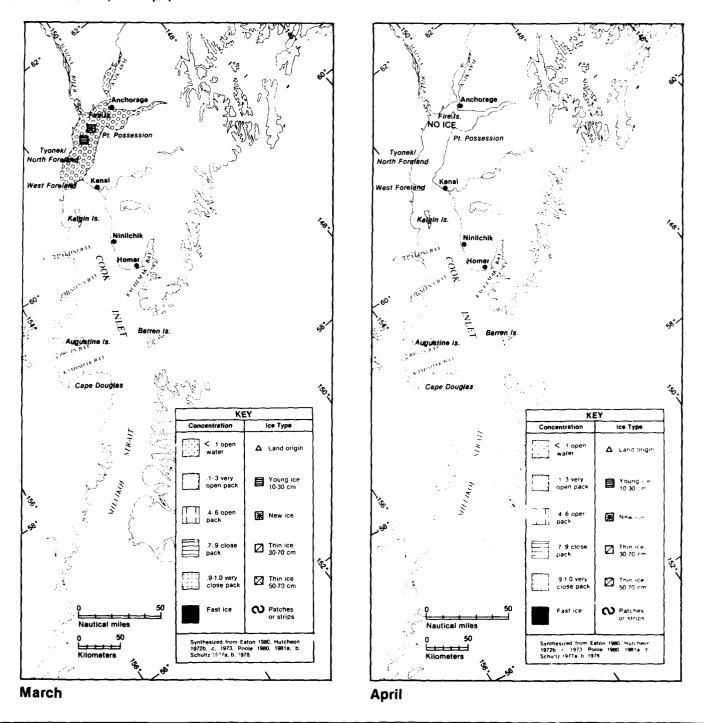


Figure 11. Cook Inlet Ice (March/April)



## **Tides**

Tides in the Gulf of Alaska are generally of the mixed type with two high waters and two low waters per day. Range varies from less than 10 ft along the southeast coasts of the Alaska Peninsula, Kodiak, and exposed areas of the eastern Gulf of Alaska and southeast coasts to over 30 ft in the Knik and Turnagain arms of Cook Inlet.

#### Legend

-- 10- Tide Corange in Feet

Adapted from Figures 7 and 8, U.S. Navy, 1977, pp. 370, 371.

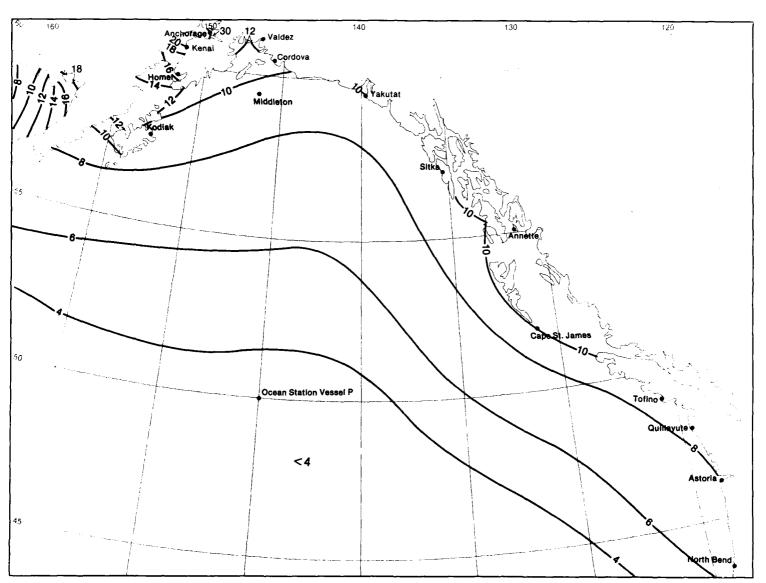


Figure 12. Tide Co-Range

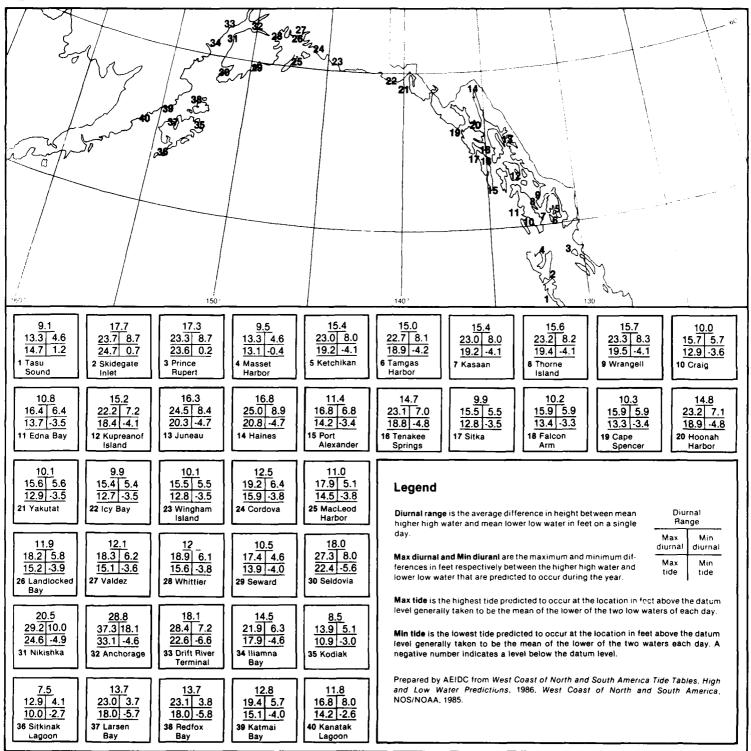


Figure 13. Tide Data

## **Storm Surges**

Storm surges are waves oscillating in the period range of a few minutes to a few days, in a coastal or inland water body, resulting from forcing from atmospheric weather systems (Murty 1984). By this definition, wind-generated waves (often referred to as wind waves) and swell, which have periods of several seconds, are excluded. The spectrum of storm surge waves is

centered around 10 - 4 cycles per second (CPS), which gives a period of about three hours. However, depending mainly on the topography of the water body and secondarily on other parameters, such as the direction of movement of the storm, strength of the storm, stratification of the water body, presence or absence of ice cover, and nature of tidal motion in the water body, the

periods of the water level oscillations may vary considerably. Even in the same water body, storm surge records at different locations can exhibit different periods.

Although storm surges belong to the class known as long waves, as do astronomical tides and tsunamis, there are at least two important

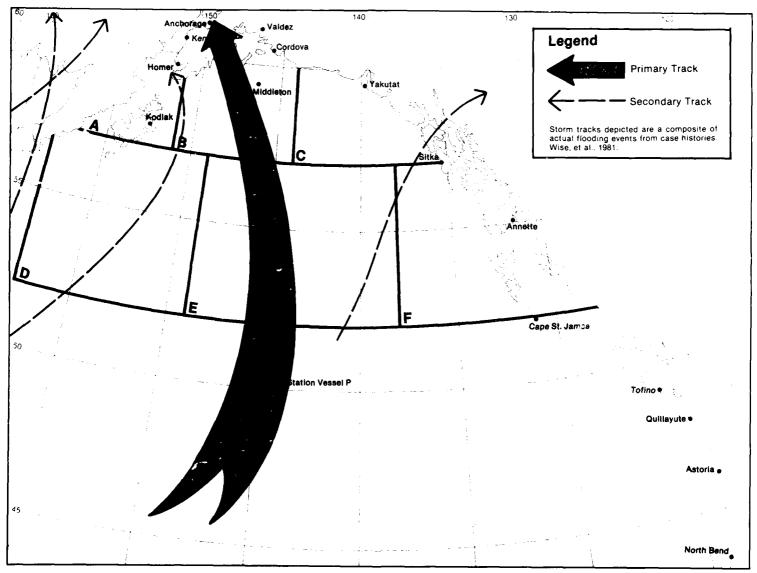


Figure 14. Storm Tracks with Storm Surge Floods

differences. First, whereas tides and tsunamis occur on an oceanic scale, storm surges are simply a coastal phenomenon. Second, significant tides and tsunamis cannot occur in an enclosed, small, coastal or inland water body, but storm surges can occur even in lakes, or in canals and rivers. The range or height of a storm surge depends not only on characteristics of the storm but also on the topography onshore and bathymetry offshore. Shallow water bodies generally experience surges with greater ranges. Also, the height of a storm surge is less if the sea floor is steep than if there is a shallow slope to the sea floor (Murty 1984). Storm characteristics that effect the height of a surge include atmospheric pressure; wind speed, direction, and length of fetch; the latitude; and

the direction and speed of storm movement. Air and water temperature differences also affect the height of surges.

In the Gulf of Alaska there have been few cases of damage to shore facilities from storm surges. For the most part, offshore bathymetry is not suitable for surges. There are some exceptions. The west coast of the Kenai Peninsula and the shores of upper Cook Inlet are of low relief, and several spits jut into Cook Inlet and Shelikof Strait. The open-water stretch from Shelikof Strait to lower Cook Inlet is sufficient to develop a storm surge with southwest winds, and the area of lower Cook Inlet is also sufficient for the development of storm surges with west-southwest winds. All storm surges in lower Cook

Inlet and the Kodiak Island area have occurred in the fall and winter (Wise, Comiskey, and Becker 1981), primarily because winds of sufficient strength to produce surges in the limited fetches do not develop in other seasons of the year.

There are no known cases of storm surge flooding on the Prince William Sound and eastern Gulf of Alaska coasts. Communities in this area are generally in sheltered locations and the most susceptible areas, such as the Copper River delta, are generally uninhabited. in southeast Alaska neither terrain nor bathymetry are favorable for storm surge flooding. High windwave action, in conjunction with surges of 2-3 ft, occasionally causes damage to communities along the inside passage.

## Superstructure Icing

Structural icing on ships, offshore structures, and port facilities is a wintertime hazard in open waters and coastal sections of Alaska. The icing causes slippery decks, renders moving parts inoperable, and, in extreme cases, causes uneven loading and raises the center of gravity on small ships. Accumulation of ice on rigging and on deck equipment such as crab pots also increases wind effects because a larger surface area is presented to the wind loe forming on structural surfaces above or close to a body of water arises principally from sea spray (Nauman and Tyage 1985; Liljestrom 1985), with lesser amounts from atmospheric precipitation (freezing rain and wet snow) and fog (arctic sea smoke, white frost, black frost). Sea spray, the most dangerous source of icing, is produced by the breaking of waves against obstacles such as ships' hulls, other floating objects, shore structures, and, possibly, other sources (Minsk 1977).

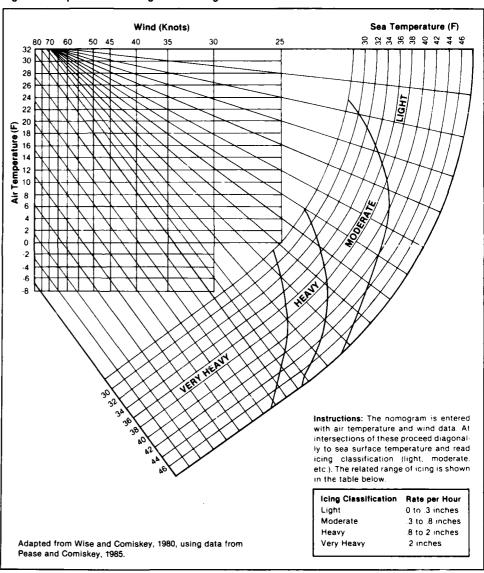
Statistical analysis (Borisenkov and Panov 1972) of more than 3,000 cases of ship icing indicates that in 86% of the cases icing was caused by ocean spray alone. Spray combined with fog, rain, or drizzle (liquid sources) accounted for only 6.4% of the cases, and spray combined with snow (solid source) only 1.1%. The cases of icing attributable only to fog, rain, or drizzle account for 2.7% (Minsk 1977). In the remainder of icing cases data were not sufficient to determine the cause.

Since the overwhelming majority of superstructure icing on ships and offshore structures is from sea spray, the remainder of this section will concentrate on this type of icing. Since a ship can present different aspects to the wind and spray, it is to be expected that the amount of spray reaching the ship will vary: Russian observations (Kultashev, et al. 1972) showed that the greatest frequency of spray and, therefore, icing occurs when a ship is heading into the wind at an angle between 15° and 45°. Asymmetrical icing occurs under this condition, with the greater accumulation on the windward side. Less icing occurs with the ship headed directly into the wind, and then accumulation tends to be uniform. With ships heading downwind, spray icing is generally much less than at other angles. In developing the nomogram for forecasting spray icing potential, downwind cases (those for which the ship's heading was 120° or greater off the wind) were not used.

Meteorological/oceanographic conditions necessary for significant spray icing are water temperatures less than 8 °C, winds of 25 knots (13 m/s) or more, and air temperatures less than  $-2\,^{\circ}\text{C}$  (28°F, the freezing temperature of seawater of average salinity). Generally, the stronger the wind, and the colder the air and water, the higher the rate of icing on comparable vessels or structures. In some cases, however, where the wind fetch is not sufficient to fully develop waves, icing rates are lower.

The accompanying potential superstructure icing rate nomogram (Figure 15) is a modification of that shown in Wise and Comiskey (1980), using the open ocean cases appearing in Pease and Comiskey (1985), developed from icing case histories in the Gulf of Alaska and southern Bering Sea. Icing intensities in inches per hour are also from Pease and Comiskey

Figure 15. Superstructure Icing Rate Nomogram



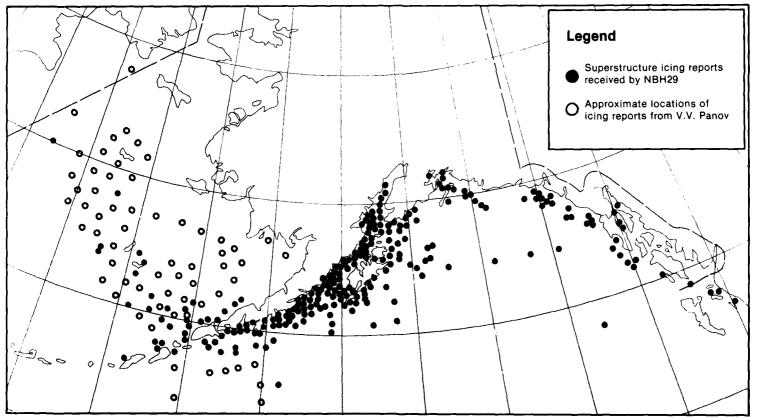
(1985). If a vessel experiencing icing takes evasive action (i.e., changes heading, reduces speed, seeks shelter, etc.), icing rates experienced would probably be less.

In the Gulf of Alaska area, most superstructure icing reports on ships and offshore structures are from lower Cook Inlet through Shelikof Strait (Figure 16). During the cold season this area is often under the influence of strong, cold, offshore winds which generate a considerable amount of spray, even with a short fetch. Another part of this region particularly prone to icing is from Kamishak Bay westsouthwest through the Kennedy and Stevenson entrances to Cook Inlet. This area has been called the "blow hole" by mariners. The occurrence of heavy to extreme icing extends farther offshore here than in most other areas.

Heavy to extreme icing occurs up to 160 km (100 mi) offshore, from Prince William Sound southeast to the Dixon entrance. This area is especially prone to icing at mouths of major rivers or canyons, such as at Whittier, Valdez Arm, and the Copper River delta, and near major

glaciers and ice fields from Yakutat southeast to the Dixon Entrance. Icing also occurs in the inland passage of southeast Alaska when extremely cold air flows across the Coastal Mountains from the Yukon Territory of Canada. Winds are particularly strong at mouths of major rivers such as the Taku, Stikine, and Unuk, and at Portland Iniet. Further offshore the cold air is warmed by the relatively warm waters in the Gulf, and icing is reduced to light or moderate intensity.

Figure 16. Reported Occurrences of Superstructure Icing on Ships



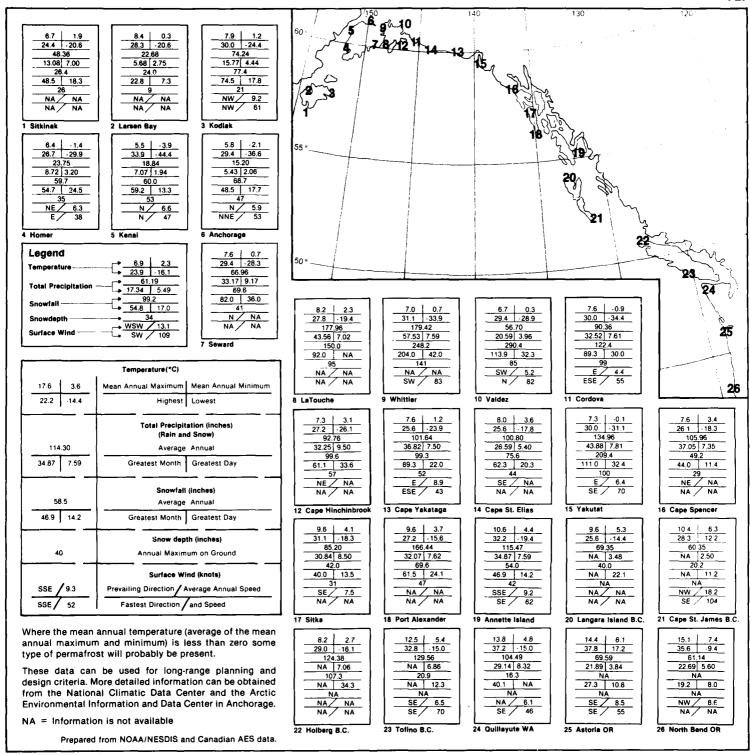


Figure 17. Climatic Means and Extremes

### **Hypothermia**

Hypothermia is the cooling of the body's core temperature to 95°F or below. It can cause shivering, numbness, and disorientation. In the extreme it can cause death. The body loses heat gradually in cold, dry conditions, but quickly becomes hypothermic in wet conditions. Rain, immersion in cold water, and perspiration can all cause rapid heat loss. However, the evaluation and treatment of hypothermia, whether wet or dry, on land or water, is essentially the same, namely to warm the victim by whatever appropriate means are available.

The following discussion was taken in part from Peters (1982).

The body loses heat in five ways:

- A large amount of heat is lost from the body in respiration. Exhaled warm air is replaced by cooler inhaled air, producing a net heat loss. The amount of the net heat loss can be reduced by covering the mouth/nose with wool or fur, thereby "prewarming" the inhaled air as it passes through the material which has been warmed by exhaled air and by heat radiating from the body.
- Evaporation of perspiration from the skin and moisture from the lungs contributes greatly to the amount of heat lost by the body. Although evaporation cannot be prevented, the amount of evaporation (and therefore cooling) can be controlled. Wearing clothing that can be opened or removed easily for ventilation will let water vapor escape and not condense to liquid water in the clothing. Keeping clothing dry preserves its insulating value and reduces heat loss.
- Sitting on snow, touching cold equipment, and being rained upon are all examples of how heat can be lost as a result of conduction. If an individual becomes wet a tremendous amount of body heat is lost rapidly. Deaths have occurred as a result of immersion in water below 40°F—body temperature could not be maintained. Although not as immediately serious, perspiration, rain, or wet snow should never be allowed to saturate articles of clothing, as this seriously reduces their insulating properties.

- Radiation causes the greatest amount of heat loss from the body from uncovered surfaces, particularly the head, neck, and hands. Coverage of these areas, therefore, is extremely important in keeping warm.
- The body continually warms (by conduction) a thin layer of air next to the skin. If the warm layer is removed by wind or air currents (advection), the body is cooled. The primary function of clothing is to retain this layer of warm air next to the skin by enclosing air in cell walls or between numerous fibers, while allowing water vapor to pass outward. Heat is lost rapidly with the lightest breeze unless the proper type of clothing is worn to prevent the warm air from being advected away.

Deaths have been attributed to a loss of body heat at temperatures of 40°F, with a 30 mph breeze. Under these conditions, the cooling effect on the skin is equal to that of much lower temperatures due to increased evaporation and convection. With lower temperatures and/or strong winds, cooling occurs even more rapidly. Wind protection and insulation (dead air space) can help ensure that body heat is retained at a safe level.

#### **Treatment**

Recognition and proper treatment of hypothermia must be prompt. Delays even after rescue can cost a person his life. Low body temperature is the best indication of hypothermia. Blood pressure and pulse are also good indicators. The pulse is generally slow and irregular, while blood pressure is low.

The hypothermia victim is pale in appearance, the pupils are constricted and react poorly to light, and respiration is slow and labored. He will usually be shivering violently, with frequent muscular rigidity. There may also be an appearance of intoxication.

Emergency treatment must begin as soon as possible to stop the drop in body temperature. Wet clothing should be removed. If the body temperature is 97 °F or above, no treatment other

than dry clothing and moving the victim to a warm area is generally necessary. If these are not available, the wet clothing should not be removed.

Combatting "afterdrop" in the core body temperature is extremely important. When heat is applied to the arms and legs, it causes those blood vessels to relax. This allows cold blood to flow back into the body core, further cooling the vital organs. Warming of the trunk of the body should be the prime concern.

During experiments in conjunction with the U.S. Coast Guard, researchers determined that the best warming technique was from the inside out, by having the victim breathe moist, warmed oxygen (Wilson 1976).

The next best treatment is a hot bath, with the water temperature between 90 and 100°F. If a tub is not available, an inflated life raft could be used. If possible, the limbs should remain out of the water. When no tub-type facility is available, a hot (115°F) shower while wrapped in towels or blankets is preferable.

When hot water for a tub or shower is unavailable, wrap the victim in blankets in a warm room with a heating pad or well-wrapped hot water bottle on the chest, or apply body warmth by direct contact with a rescuer.

Warm liquids may be given, but care must be taken to insure the victim is conscious and does not breathe the liquid into his lungs. Alcohol should never be given because it causes "afterdrop." Observe the victim's respiration closely and monitor for vomiting.

It has been learned in studies done in Alaska that victims of wet hypothermia can survive for a prolonged time in cases of deep cooling. Apparently, in the rapid cooling which occurs with wet hypothermia, physiological changes undergone by the body are more likely to be reversible than in the slower cooling of dry hypothermia. There have been victims of immersion hypothermia who were apparently dead but revived with proper treatment.

#### Wind Chill (Equivalent Temperatures)

The temperature of the air is not always a reliable indicator of how cold a person will feel outdoors. Other weather elements, such as wind speed, relative humidity, and sunshine (solar radiation), also exert an influence. In addition, the type of clothing worn, together with the state of health and the metabolism of an individual, influence how cold a person will feel. Cooling may be described as loss of heat from exposed flesh. Freezing occurs when there is such total heat loss that ice forms in the exposed tissues. The cooling power of the atmosphere (by wind) is primarily heat transfer by advection-in human cases, by exposure of uncovered flesh to the environment. Even small amounts of air movement have considerable chilling effect because this movement disrupts or removes the thin layer of warmed air that builds up near and about the body. This air movement leads to loss of total heat, since heat is transferred from the core of the body to rewarm the new colder air, replacing that blown away. Therefore, wind chill not only leads to frostbite locally, but may contribute to general hypothermia.

During the antarctic winter of 1941 Siple and Passel developed a formula to determine wind chill from experiments made at Little America (Siple and Passel 1945). The formula relates heat loss (H) from an object or person to wind speed and to the difference in temperature between the air and the object or person (DT). It is measured in heat units (calories) per unit area over time. The skin temperature of most people is approximately 33 °C (91.4 °F). Heat losses for the human body can then be computed for any combination of wind and temperature. Equivalent temperature is based on calm conditions and a person walking vigorously at 3 knots (4 mph). Each combination of wind and air temperature produces a heat loss H. The equivalent temperature is that temperature that would compute the same heat loss at a wind of 3 knots. The accompanying chart, figure 18, shows equivalent wind chill temperatures in °C for various combinations of winds in knots or km/hr and temperatures.

Concepts in the following discussion of wind chill are from an appendix to an article by

Wind	Speed	i					Cooli	ng Powe	r Of Win	d Expres	sed As '	Equival	ent Chill	Tempera	itur:"				_				
knots	km hr									Tem	perature	(°C)											
C.	ılm	12	8	4	0	- 4	- 8	- 12	- 16	- 20	- 24	- 28	- 32	- 36	- 40	- 44	- 48	52	56	- 7			
									Ec	uivalent	Chill Te	mperatu	re										
3	6	12	8	4	0	- 4	- 8	- 12	- 16	- 20	- 24	- 28	- 32	- 36	-40	-44	- 48	- 52	- 56				
5	10	9	5	0	- 4	- 8	- 13	- 17	- 22	- 26	-31	- 35	- 40	44	- 49	- 53	- 58	14 S					
11	20	5	0	- 5	- 10	- 15	- 21	- 26	-31	- 36	- 42	-47	- 52		B	174	S. Torres	the No. of	ANK.	E 1			
16	30	3	- 3	- 8	- 14	- 20	- 25	-31	- 37	-43	4	-54	W. 1				Sel		Frank				
22	40	1 -	- 5	- 11	- 17	- 23	- 29	- 3 <del>5</del>	-41	-47	- 53	- 59			100					1			
27	50	0	- 6	- 12	- 18	- 25	- 31	- 37	-43	- 49	- 58							100	1	-1			
32	60	0	- 7	- 13	- 19	- 26	- 32	- 39	- 45	-51	8	(3,3)	tk					L.M.	Name of Street	-1			
38	70	- 1	- 7	- 14	- 20	- 27	- 33	-40	- 46	- 52	reserved	4						1 2		-1			
43	80	- 1	- 8	- 14	- 21	- 27	- 34	-40	- 47	- 53								P.	200	-1			
49	90	- 1	- 8	- 14	- 21	- 27	- 34	-40	- 47	- 63		A. S. A.	4				-	100	- 188	++			
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			LII	tle Dang	er	_	- 1	noreasin	g Danger										7. : · · .	-			
			(Fiesh May Freeze Within 1 Minute)																				

Figure 18. Equivalent Wind Chill Temperature

Adapted from NWS/NOAA Technical Procedures Bulletin No. 165 · Effective Temperature (Wind Chill Index) 1976.

William J. Mills, Jr., M.D., as published in Alaska Medicine (1973). Dr. Mills is still active in the treatment of cold injuries in Alaska.

Almost everyone knows that the increased speed of wind may cause increased danger of skin freezing. Many assume that the increase in wind speed causes the ambient air temperature to fall lower. This is not so. What does occur is air movement, so that warmed air is moved away from the individual exposed to the wind, causing first local, then general body cooling. Any resultant decrease of skin temperature is due to heat loss, insidious or sudden. Local vasoconstriction, vascular shunting, and cellular changes take place; eventually ice forms in the tissues, with true tissue freezing or frostbite.

This phenomenon can be readily proved. Place a laboratory recording thermometer with a thermistor attached (or any outdoor thermometer) out your car window on a calm day when the temperature is, say,  $-20^{\circ}\text{C}$  ( $-4^{\circ}\text{F}$ )—just a nice winter day in Anchorage, Alaska. Let it sit for a few minutes until the temperature

reading has stabilized. This temperature, as read, will remain at the ambient air temperature level. Now slowly accelerate your vehicle to 80 km/hr (50 mph); the temperature remains unchanged at -20°C (-4°F). Now attach the thermistor to your bare hand. Place your ungloved hand out the same car window in the same ambient temperature of -20°C (-4°F). After a few minutes at 0 km/hr, the skin temperature may be read at approximately 93 °F (normal skin temperature in the nonsmoker). Your skin temperature will drop as heat is lost to the exterior, sometimes falling as low as 85° to 80°F very rapidly. As the car is accelerated and the warmed air layer is moved away, the thermistor records skin heat loss. If you continue driving, your skin temperature may drop to a level near 23°F (-5°C), the temperature at which freezing of skin may actually occur.

Wind chill may occur not only from natural wind, but also with air movement generated by automobile, snowmobile, aircraft, or helicopter rotoblade. These vehicles may predispose passengers to frostbite or general hypothermia.

# Section II: Marine and Coastal Climatic Atlas

by William A. Brower, Jr., Ronald G. Baldwin, and Claude N. Williams, Jr.

# Marine and Coastal Climatic Atlas — Section II

William A. Brower, Jr. Ronald G. Baldwin Claude N. Williams, Jr.

The marine observations used in computing the statistics for the maps, graphs, and tables in this section of the three-volume atlas were taken from the National Climatic Data Center's (NCDC) marine surface data files which include the Comprehensive Ocean Atmosphere Data Set (COADS). COADS is the result of a multiyear effort by NOAA and the National Center for Atmospheric Research (NCAR) to provide a quality-controlled marine data set which incorporates data from a variety of global sources for 1854-1979. Those files are: TD-1170 for COADS and TD-1129 for 1980-1985. Because relatively little data exist for near-coastal zones, observations from 66 U.S., Canadian, and Russian coastal stations were combined with the marine data in order to present the best possible climatological picture of the outer continental shelf waters and coastal regions of Alaska, and adjacent Canadian and Russian regions.

Data for the U.S. and Russian stations were taken from the edited digital files of NCDC and the U.S. Air Force's Environmental Technical Applications Center (ETAC) in Asheville, North Carolina. Digital data from the Canadian stations were purchased from the Canadian Climate Centre in Downsview, Ontario. All data were subjected to thorough computer and visual quality control in order to eliminate duplicate observations and exclude questionable elements detected during internal consistency and extreme value checks.

The percentages of the summarized 4.5 million marine and 8.5 million coastal station land observations that contain basic weather elements are:

	Marine	Coastal Stations
Wind	93.8	99.1
Visibility	79.5	97.5
Present weather	82.8	95.7
Total cloud amount	79.6	97.3
Low cloud amount	67.4	57.4
Sea level pressure	93.5	89.7
Air temperature	94.4	98.6
Wet bulb temperature	59.4	97.7
Sea surface temperature	85.6	_
Waves	65.4	_

The marine and coastal study area for which data were compiled and analyzed was expanded from 50°-80°N and 130°-180°W (in the 1977 atlas) to 40°-84°N and 110°W-160°E in order to afford greater coverage for each of the three atlas areas, with a minimum of overlap between areas. Element statistics (with observation counts) were generated for each of over 2,550 marine squares and 66 coastal stations within the study area, and then plotted by computer on monthly charts which have an albers equal-area conic projection. The marine plots were 1° latitude by 1° longitude squares for the latitude belt 40°-75°N and 1° by 2° areas for 75°-84°N. An analysis was performed on the entire marine and coastal study area in order to permit continuity between the three atlas areas. Meteorologists, aided by computer-drawn isopleth contours south of 65 °N, drew isopleths (lines connecting points of equal magnitude) on 420 monthly element maps, and made subjective adjustments to the analyses when data biases or insufficient observations were evident. They also performed consistency checks in the sets of monthly patterns for each element and among elements, as well as comparative checks with other marine atlases and publications (see Reference).

Although more than a four-fold number of marine data above 65°N was available for this presentation than for the same area in the 1977 atlas, the amount remained inadequate to permit a detailed isopleth analysis by meteorologists or by computer-contouring routines. This was especially true for the cooler months when seasonal sea ice prevented ships of opportunity from frequenting the area. Isopleth analyses for the Chukchi-Beaufort Sea area, by necessity, were based principally on the plotted coastal stations' statistics, extrapolations of weather patterns identified in isopleth analyses for the warmer months, the period of greater data availability, and other marine and continental atlases and publications.

To supplement the isopleth analyses, nearly 16,750 monthly statistical graphs, tables, and roses were produced for 50 of the 66 land stations, 16 representative marine areas, and 43 5° by 5° marine areas. The graphics represent the objective compilation of all available data they were not adjusted for suspected biases, and differences may be found when comparing the graphics data with the isopleth analyses.

For each topic set, all months are grouped in calendar order with one or two pages preceding each set containing the legend and narrative for that set. The legends contain detailed instructions on how to read the graphics and provide remarks which aid in interpreting the data. The following paragraphs contain additional remarks which are likely to be of interest to those called upon to interpret the data and provide answers to specific operational questions. The table on page II-4 describes the data and marine areas for this volume.

A word of caution. The intent of this atlas presentation was to gather and present existing data on climatological conditions within the marine and near coastal areas of Alaska and adjacent Canada and Russia. The data are presented without discussion and interpretations. Given the information presented in the introductory text, legend descriptions with related text, and number of observations (with measures of variability for some) displayed with the graphics presentations, the user should be able to assess the degree of statistical confidence in the presented climatology for a riven month and location.

## **Standard Deviation**

Some of the graphs display approximation of the empirical probability of occurrence of selected criteria. This is a major factor in assessing the risk involved in operational planning. For certain elements, unbiased estimates of population standard deviations are given on the graphs to provide a measure of variability. The standard deviation was computed using the expression:

 $s = \begin{bmatrix} N\Sigma x_i^2 - [\Sigma x_i]^2 \\ \hline N(N-1) \end{bmatrix}^{1/2}$ 

where N is the number of observations in the sample and  $x_i$  is the ith realization of the random variable x.

#### Sea Ice

The ice isopleths presented in Sets 17-19 give the percent probability of finding ice of any kind, ice concentration of one-half coverage or more, and ice thickness of eight feet or more, within the Alaska study area. Actual concentration boundaries, under the influence of changing synoptic meteorological and oceanographic

situations, may vary widely from the averages. An isopleth label, therefore, does not explicitly define the conditions on either side of the line since presence of sea ice is discontinuous in nature and regions of 80% mean ice concentration may be bordering regions of 20% ice concentrations with no intermediate region of 50% ice concentration. However, the inherent continuity of persistence of sea ice features permit an isopleth presentation to provide meaningful information.

The sea ice data were derived from digitized weekly analyses of sea ice conditions based primarily on satellite imagery (90%) supplemented by ship and shore reports, and aerial reconnaissance. These weekly polar sea ice analyses have been operationally produced by the U.S. Navy/NOAA Joint Ice Center (JIC) since 1972. In 1981, JIC initiated a Sea Ice Digitization Program to digitize the weekly polar ice maps as they become available. NCDC was funded by the U.S. Navy to design software and digitize all weekly ice concentration charts available since 1972 and ice thickness charts available since 1980, and produce polar ice atlases based on data through 1982. The Antarctic Ice Atlas was published in 1985, and the Arctic West and the Arctic East Atlases in 1986 (U.S. Navy 1986). The U.S. Navy also funded NCDC to accelerate the digitization of the West Arctic weekly charts through 1985 and produce the ice statistics presented in this atlas.

## **Low Pressure Center Movement**

The roses and tracks of the low pressure center movement maps presented in Set 22 are based on 20 years of Northern Hemisphere track charts (January 1966 - December 1985) prepared by the National Weather Service's National Meteorological Center. These charts show cyclone tracks based on 6-hourly positions of closed centers. The NCDC was funded by the U.S. Navy to develop the software and digitize some 240 monthly cyclone track charts to permit inclusion of the statistics in this atlas. Frequencies of cyclone centers passing through 5° squares were analyzed by meteorologists within the 35°-80°N, 115°W-160°E area of the North Pacific Ocean to obtain the mean tracks. Primary tracks were selected along axes of maximum cyclone center frequency and secondary tracks along axes of moderate frequency.

### Persistence of Wind and Waves

Duration and interval tables are presented in Set 23 for wind speed and wave height. Seasonal and annual tables contain objective

compilations for 23 grid points in the Gulf of Alaska and Bering Sea. The statistics are based on numerically-derived wind and wave data generated by NCDC using the Hindcast Spectral Ocean Wave Model (SOWM), developed by Dr. Willard J. Pierson and others, in producing U.S. Navy's SOWM Climatic Atlases for the North Pacific and North Atlantic Oceans (U.S. Navy 1985). No SOWM data were available to produce persistence statistics for grid points within the Beaufort Sea (Vol. III) area.

Episodes of durations (continuous hours or days) of events and episodes of intervals (continuous hours or days) between events were tallied for various thresholds. These tables give an indication of how long an episode is likely to last once it has begun. For convenience, the time an episode persisted above a given threshold is arbitrarily referred to as a "duration" of the event. The times between episodes have been termed "intervals." Data were summarized on a seasonal and annual basis because 12.5 years of hindcast data were considered too small a sample to provide representative durations and intervals for long episodes of wind and wave conditions on a monthly basis. The winter season is January-March; spring, April-June; summer, July-September; and autumn, October-December (World Meteorological Organization, 1981).

# Return Periods for Maximum Winds and Waves

Tables of estimated maximum sustained wind speeds and wave heights for selected return periods are presented in Set 24 (Set 23 for Volume III). Estimates for winds are presented for 50 coastal stations within the 3-volume area and for 23 marine grid points within the Gulf of Alaska and Bering Sea areas (Vols. I and II). Hourly wind observations for the stations and numerically-derived wind and wave data generated by Pierson's Spectral Ocean Wave Model (SOWM) for the marine grid points were used in determining the wind and wave extreme estimates. No SOWM data were available for the Beaufort Sea (Vol. III) area. Following the method outlined by Lieblein (1954, 1974a, 1974b), these estimates were obtained by initially fitting an extreme value distribution to each station and marine grid point sample containing N maximum monthly or annual wind speed or wave height values, then inverting the distribution and computing extreme values for selected probabilities. Confidence bands were then computed following the techniques of Gumbel (1958), and Gumbel and Lieblein (1954).

The extreme value distribution has the form:

$$F(x) = F(x;\mu,\beta) = \exp \left[-\exp \left(-\frac{x-\mu}{\beta}\right)\right]$$

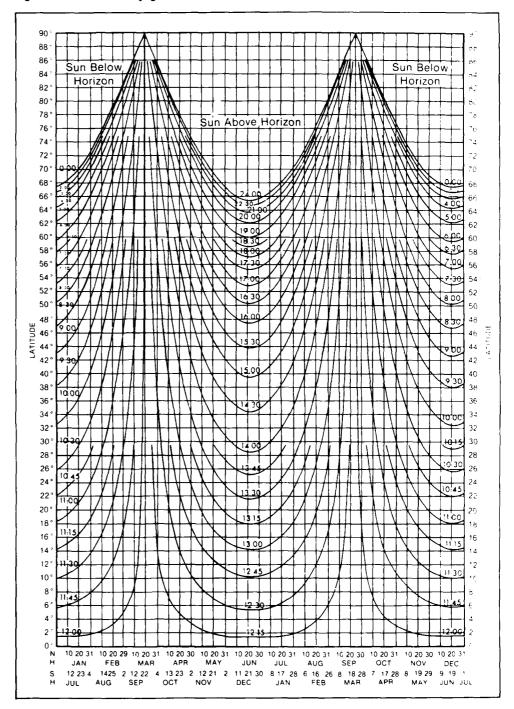
where F(x) is the probability that our observations are equal to or less than the specified value x,  $\mu$  is the mode, and  $\beta$  is the scale parameter. Since the wind data were transformed logarithmically,  $\mu$  and  $\beta$  refer to the values given in the tables of Set 24 are the result of applying the natural logarithms of the N annual extreme wind to the extreme value model, determining the  $\mu$  and  $\beta$  for each data set, and them exponentiating the logarithms of the estimates to give the probability estimates in knots. The wave data were not transformed logarithmically and, therefore,  $\mu$  and  $\beta$  are in feet.

Graphic presentations similar to Figure 1 of Set 24 were drawn for each month and for the annual values, and are available on microfiche at the NCDC. The year/month extreme data for each station and marine grid point are also available on magnetic tape. These presentations provide a visual indication of the "goodness of fit" of the model to the data. The confidence limits shown by the envelope of lines about the line of "best fit" represent the level of uncertainty in the extreme value estimate corresponding to a given probability. For this study, 68% confidence limits were computed. This means that in 68% of repeated samples, the true extreme value will be contained within these limits.

## **Duration of Daylight**

The duration-of-daylight chart for the Northern Hemisphere defines daylight as the period from sunrise to sunset. The upper scale at the bottom of the chart is for the Northern Hemisphere: the lower scale is for the Southern Hemisphere. For example, daylight on July 20 of any year at 48°N is about 15 hours and 30 minutes for any longitude. The data source was the U.S. Naval Observatory (1945) and is accurate for the entire twentieth century. Further details may be obtained from The Daylighter of the Navy Weather Research Facility (1960). Additional light (during twilight) may be usable for many purposes. Duration of daylight in high latitudes (poleward of about 60°) becomes increasingly dependent upon atmospheric conditions and refraction, and there may be some departure from the values depicted on the charts.

Figure 19. Duration of Daylight



Volume I

The following stations and representative marine areas have data plotted for analysis and graphics.

Land Stations	Lat.(°N)	Long.(°W)	Data Processed	No. of Obs.	No. of Obs/Day
Anchorage	61.2	150.0	Nov 1953-Apr 1985	276,048	24
Annette	55.0	131.6	Jul 1948-Apr 1985	224,341	8-24
Arcata*	41.0	124.1	Dec 1949-Apr 1985	212,452	4-24
Astoria	46.2	123.9	Apr 1949-Apr 1985	210,138	8-24
Cape St. James	51.9	131.0	Jan 1953-Dec 1983	245,078	8-24
Cordova	60.5	145.5	Jan 1945-Jan 1971; Jan 1973-Apr 1985	288,372	8-24
Holberg*	50.7	128.0	Jun 1956-Dec 1969	36,377	8
Homer	59.6	151.5	Jul 1948-Apr 1985	223,050	8-24
Kenai	60.6	151.3	Jul 1948-Feb 1971; Jan 1974-Apr 1985	259,523	8-24
Kodiak	57.8	152.5	Nov 1945-Apr 1985	290,051	8-24
Langara*	54.3	133.1	Jan 1954-Dec 1983	63,316	4-8
Middleton	59.4	146.3	Jul 1948-Jul 1963; Nov 1977-Apr 1985	189,492	24
North Bend	43.4	124.3	May 1949-Apr 1985	218,611	8-24
Ocean Station Vessel P	50.0	145.0	Dec 1949-Jun 1981	90,121	8
Quillayute	48.0	124.6	Aug 1966-Apr 1985	82,330	8-24
Sitka	57.1	135.4	Jul 1948-Jan 1971, Jan 1973-Apr 1985	262,535	8-24
Tofino	49.1	125.8	Jan 1960-Dec 1983	195,294	16-24
Valdez	61.1	146.4	Jul 1967-Apr 1985	67,374	8-24
Yakutat	59.5	139.7	Aug 1948-Apr 1985	224,958	8-24

<sup>\*</sup>Stations used for isopleth analyses only; no graphics produced.

Representative Marine Areas	Lat.(°N)	Long.(°W)	Data Processed	No. of Obs.
Α	57-Coast	151-Coast	1906-1984	27,933
В	57-Coast	144-151	1909-1984	52,930
С	57-Coast	Coast-144	1927-1984	43,829
D	52-57	149-158	1899-1984	151,172
E	52-57	138-149	1902-1984	195,748
F	52-57	Coast-138	1900-1984	72,149

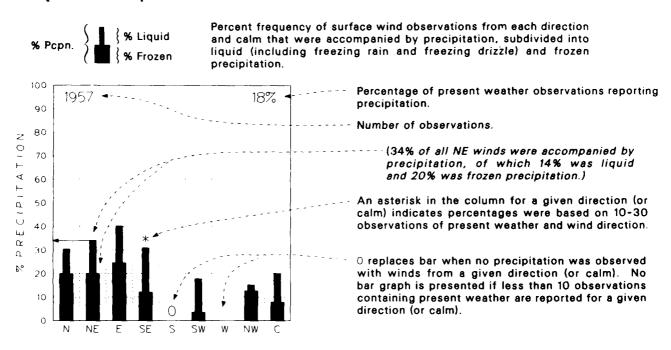
## Map 1. Precipitation

BLACK LINE - Percent frequency of observations reporting precipitation.

BLUE LINE - Percent frequency of precipitation observations reporting frozen precipitation.

Albers Equal-Area Conic Projection

## **Graphs:** Precipitation/wind direction



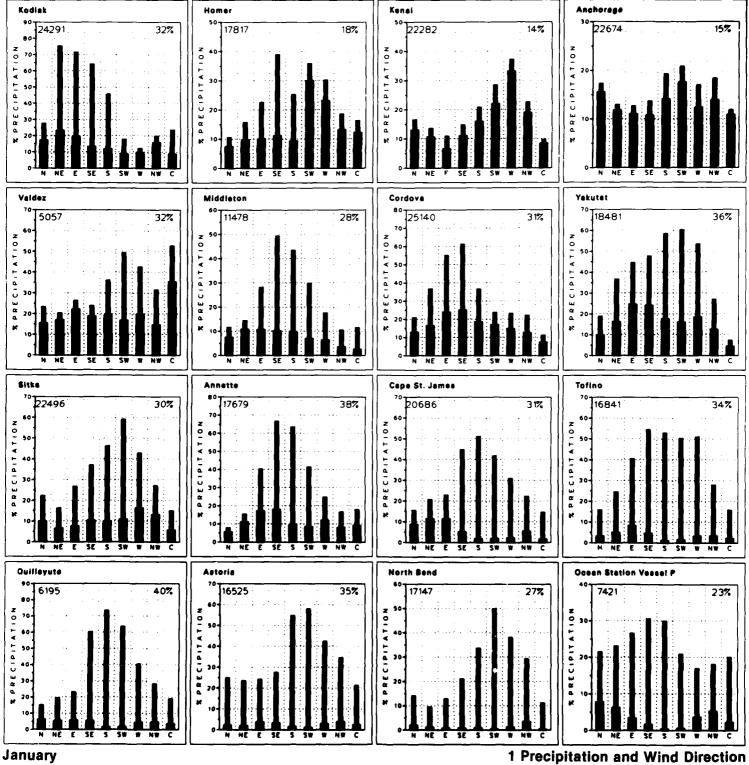
The percent frequency of observations reporting frozen precipitation for a given point on a monthly isopleth map can be determined by multiplying the percent frequency of observations reporting precipitation (BLACK LINE) with that of precipitation observations reporting frozen precipitation (BLUE LINE).

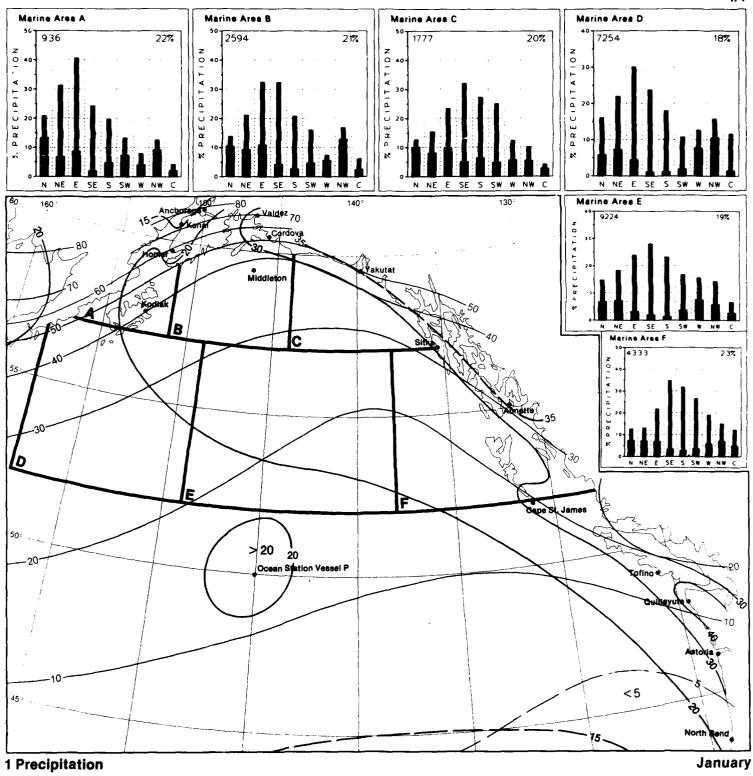
Of the elements recorded in the historical marine data base, precipitation is one that is most subject to error in both the way it is observed and the way it is interpreted. It is often implied in the literature that ships often try to avoid foul weather and thereby bias the oceanic climatology towards fair weather. A recent study by Elms (1986), in which he compared the Volunteer Observing Ship (VOS) data to Ocean Station Vessel (OSV) and buoy data, concluded there is little evidence that "fair weather bias" is a serious problem for most applications of marine climatic data.

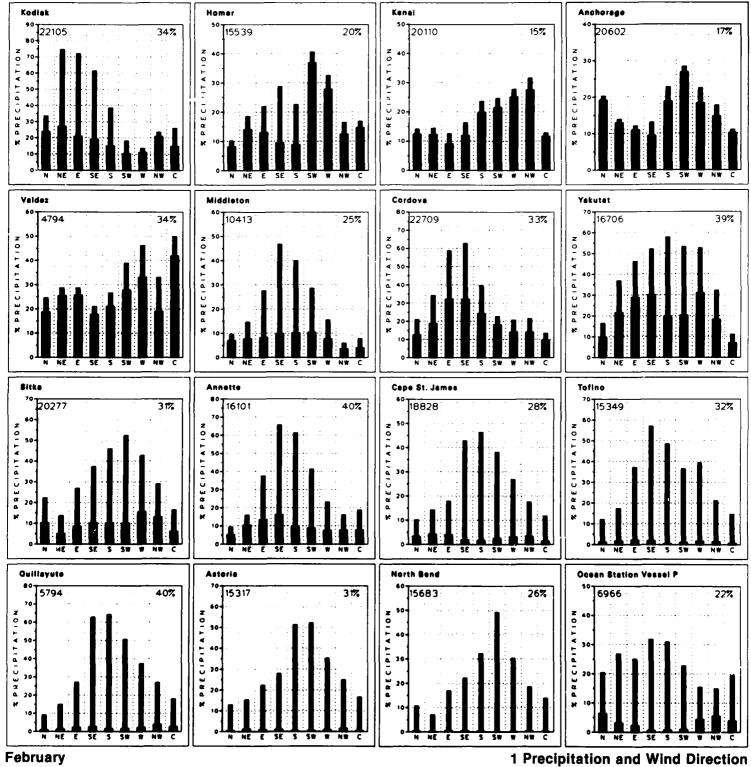
Assessing oceanic rainfall data is a major problem because transit ships are unable to take quantitative precipitation measurements. A number of studies have been conducted in efforts to predict precipitation amounts, or rates of fall, based on estimates derived from the use of present weather observations from ships of opportunity (Goroch, et al., 1984) and readings from satellites (Rao, et al., 1976). Refer to the text and table in Set 2 for additional information about precipitation.

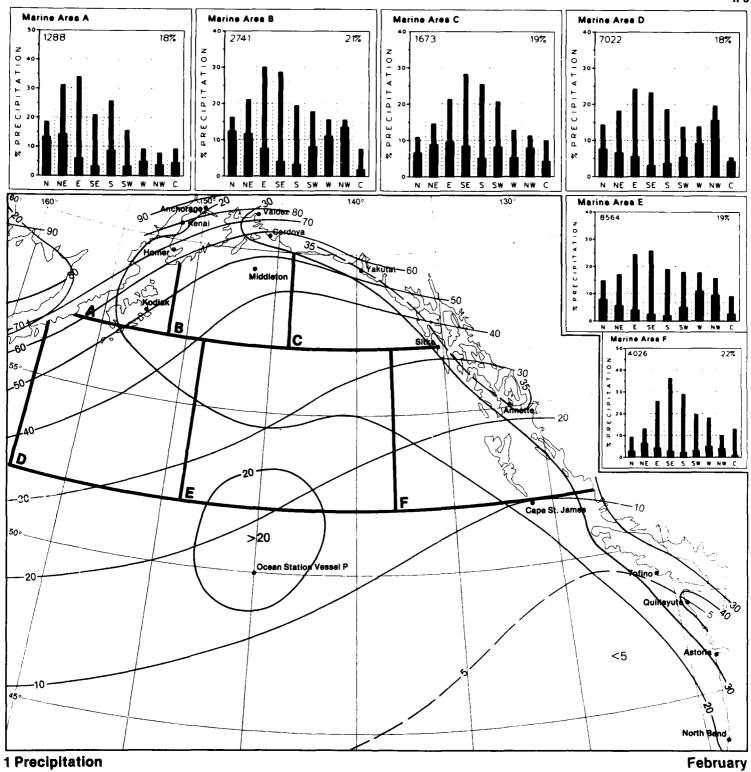
1 Legend

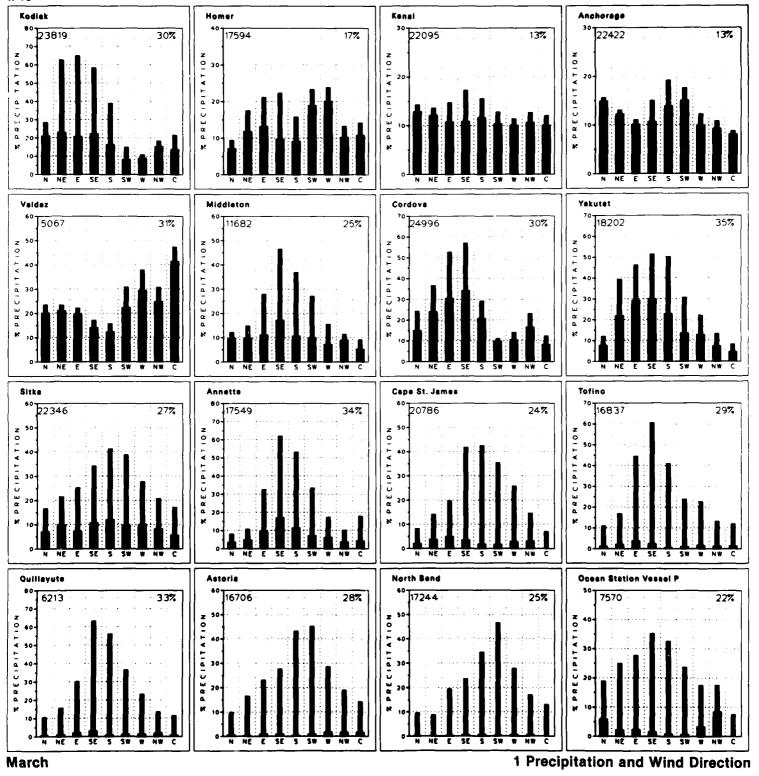
Legend 1

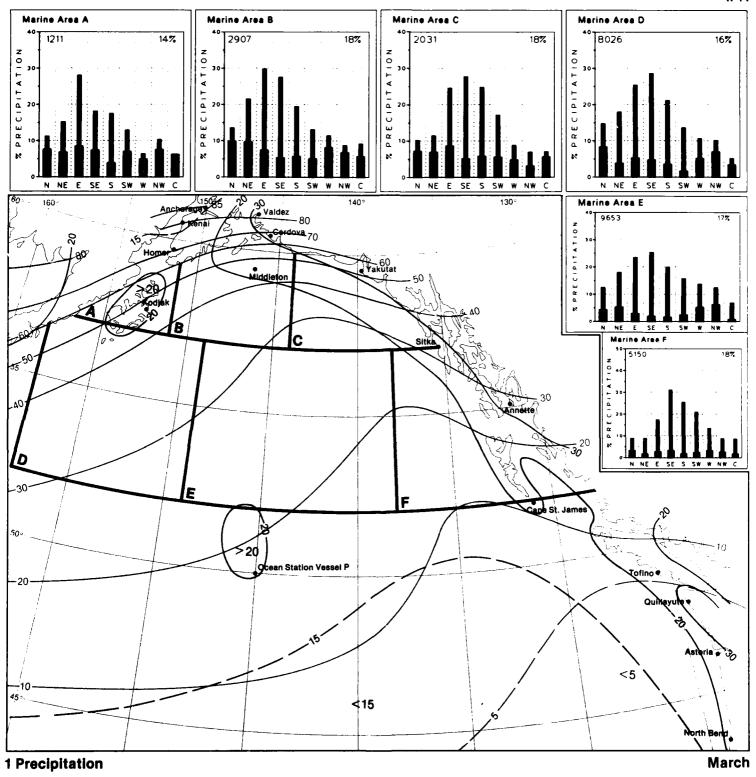


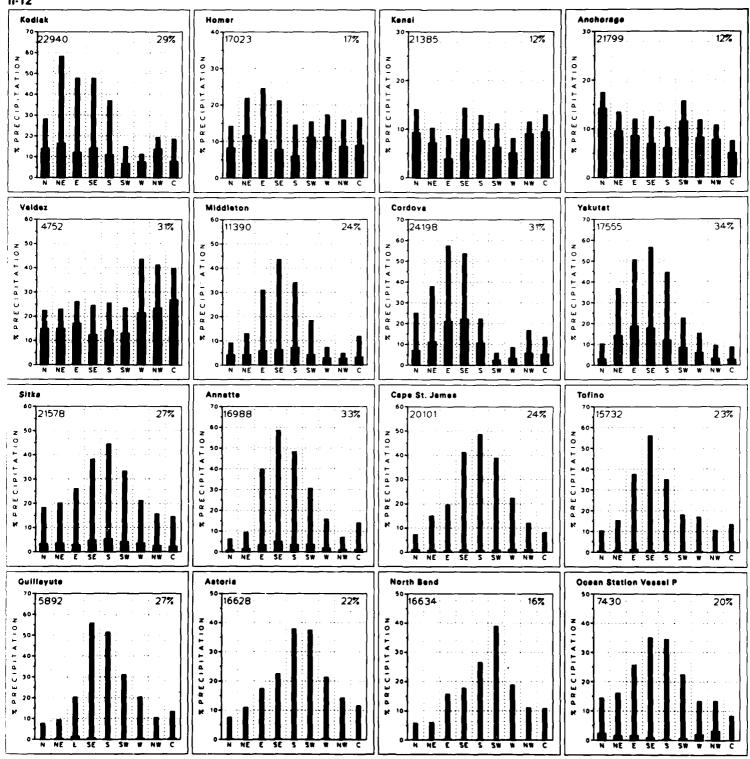




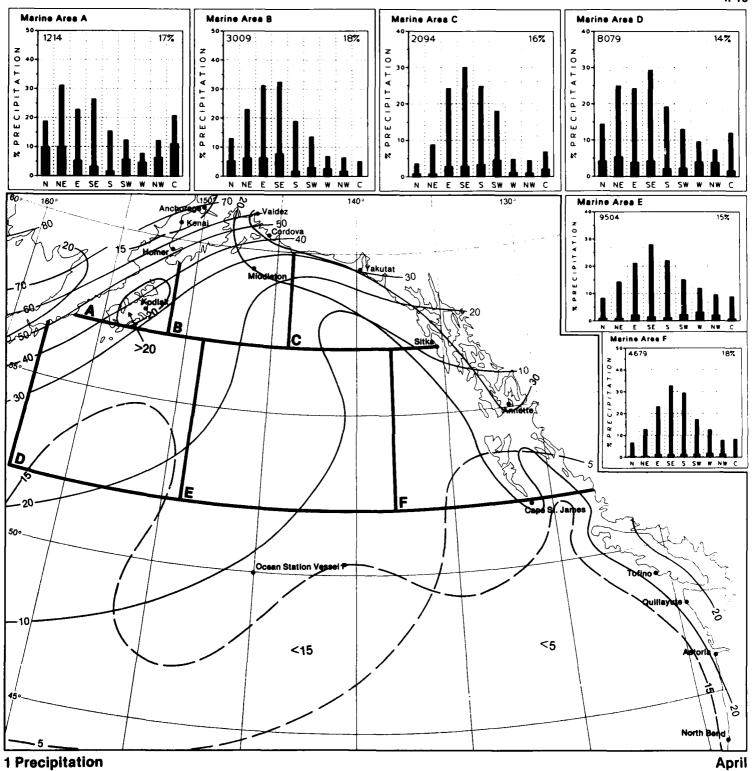


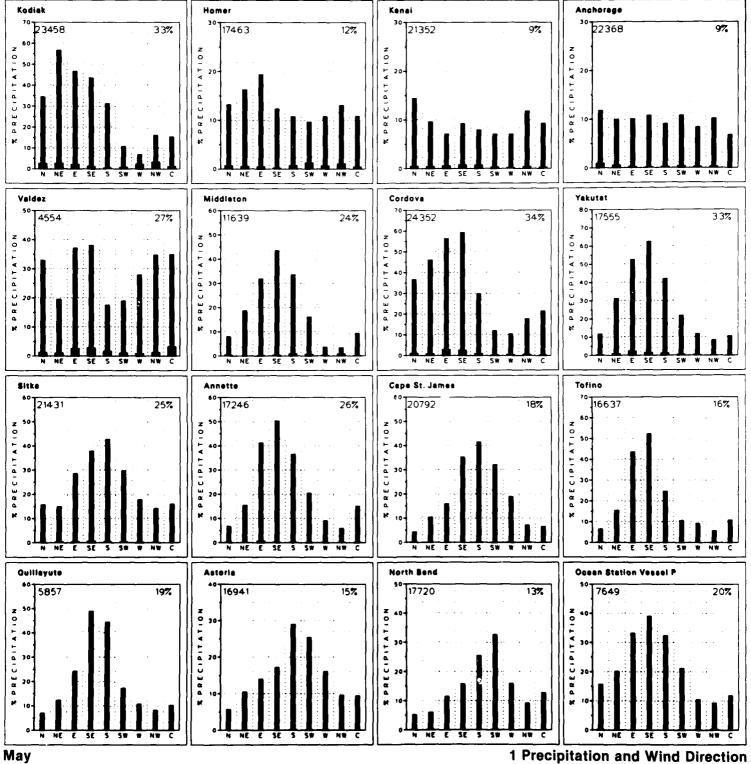




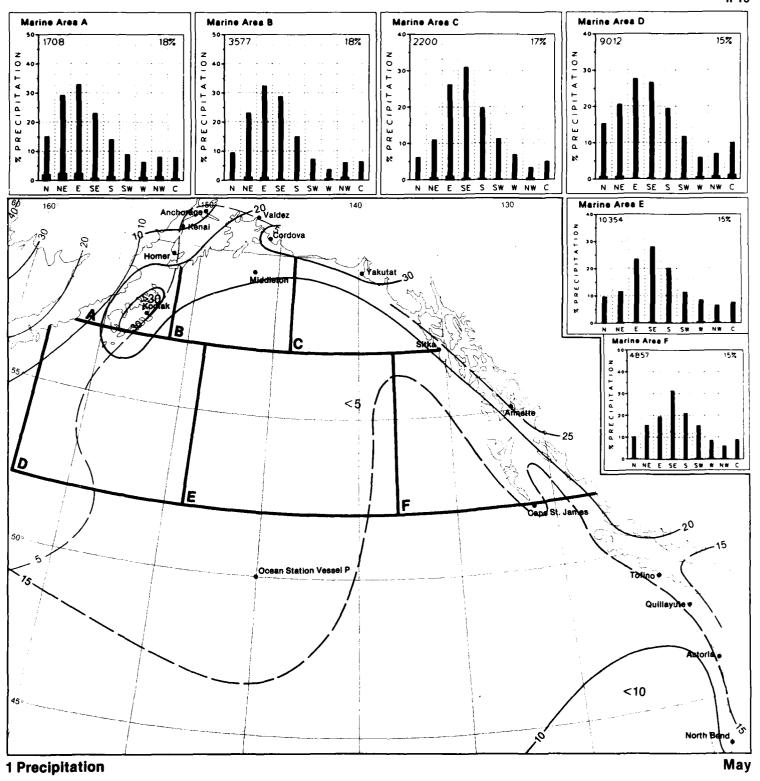


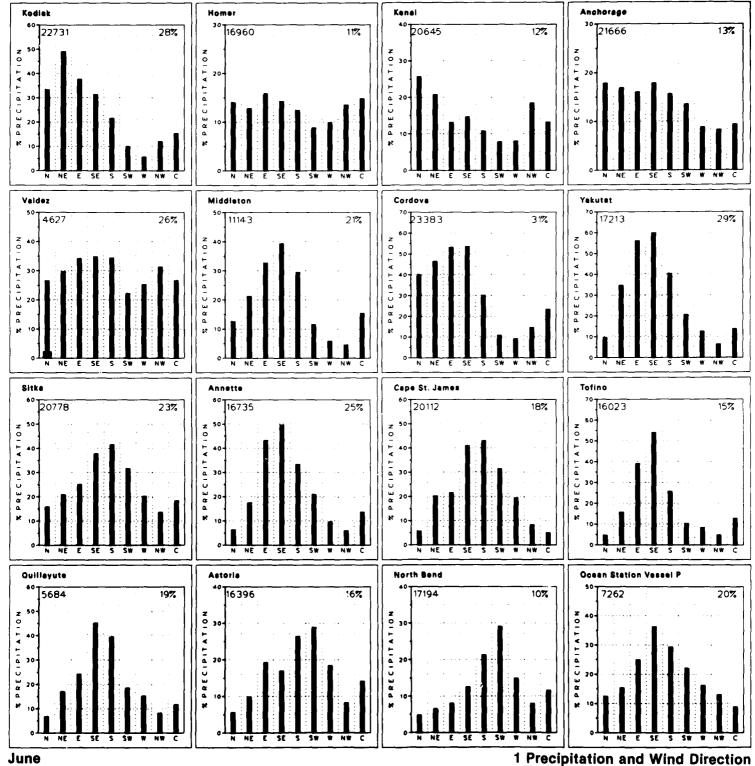
April 1 Precipitation and Wind Direction

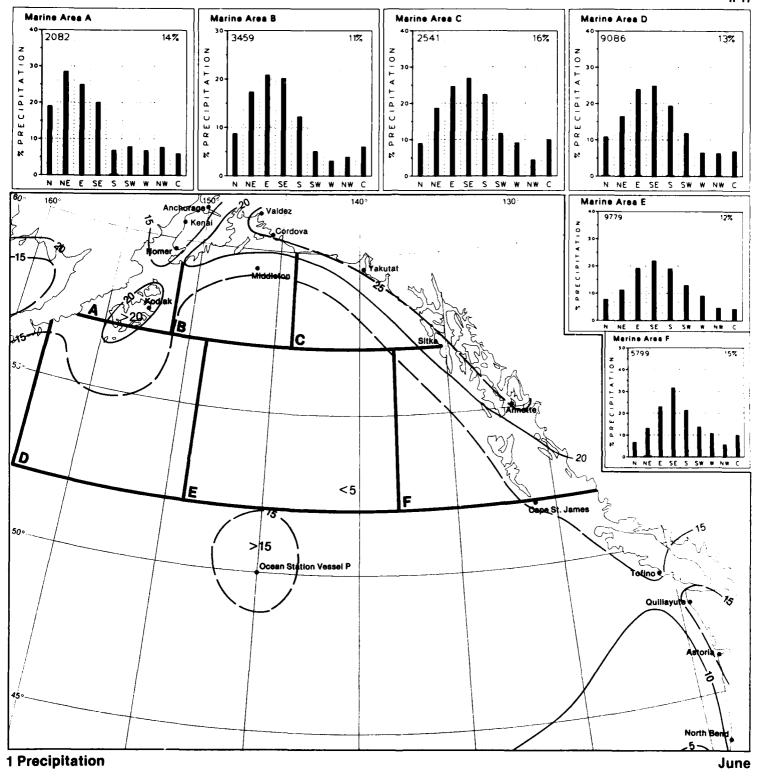


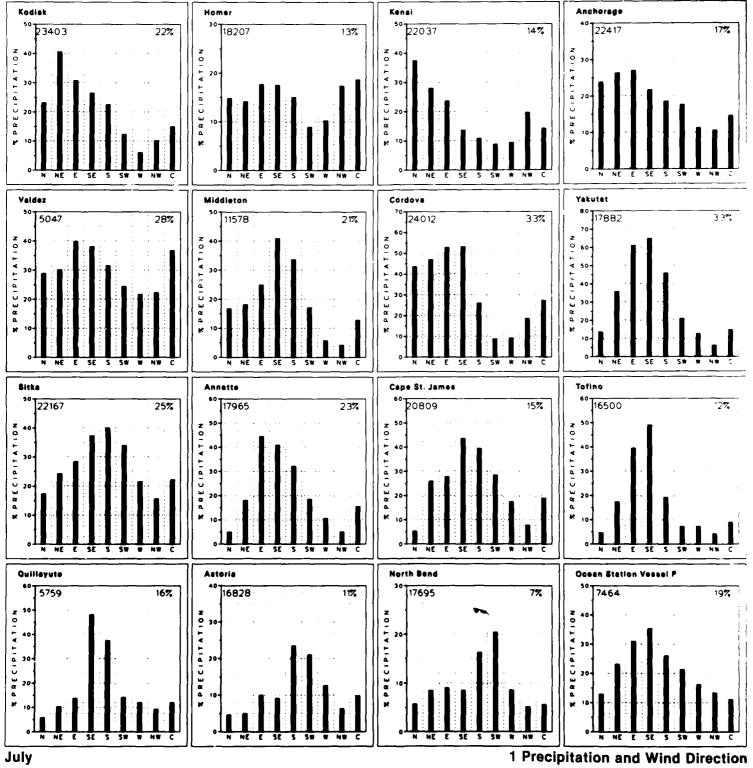


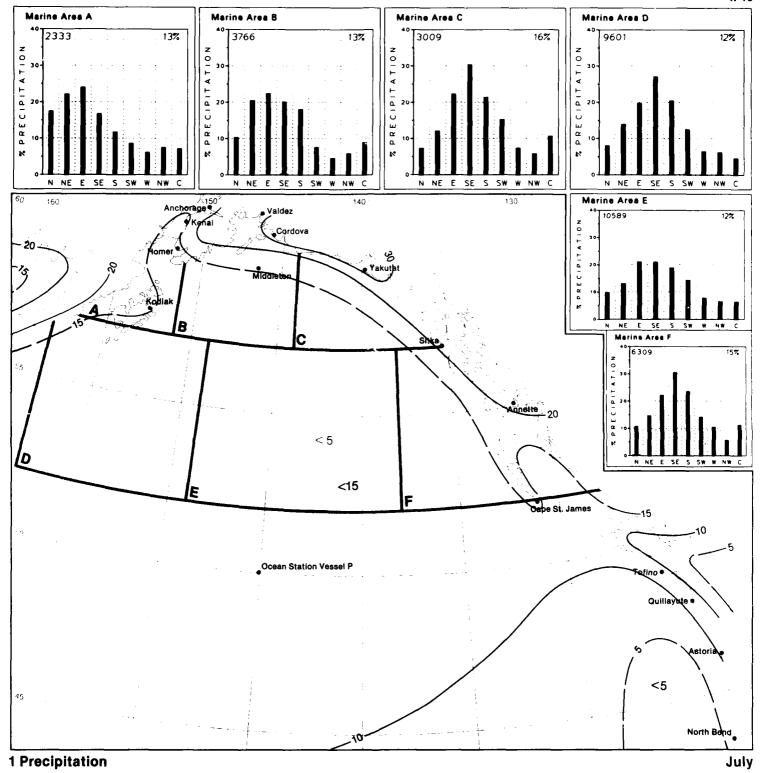
1 Precipitation and Wind Direction

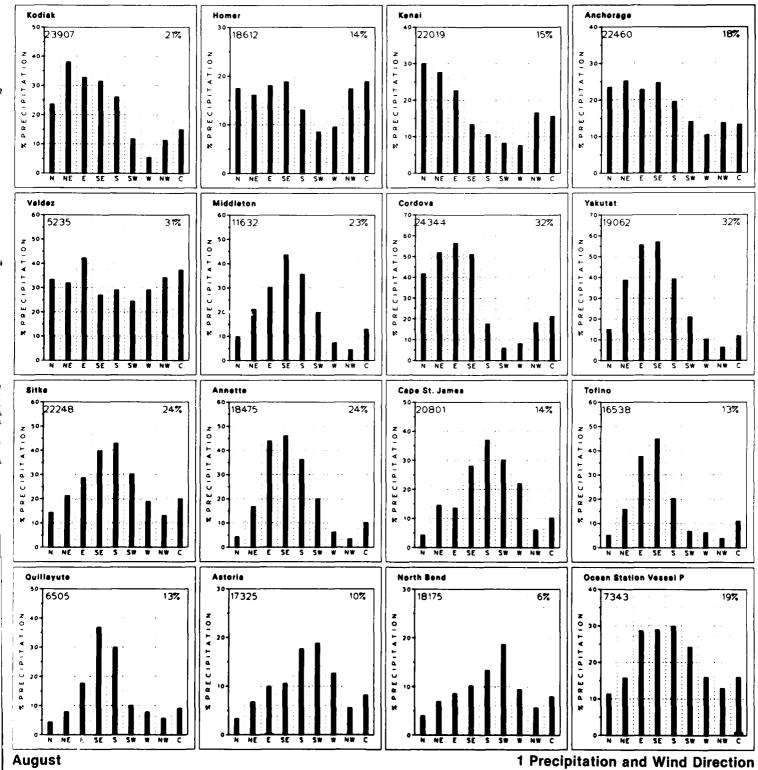


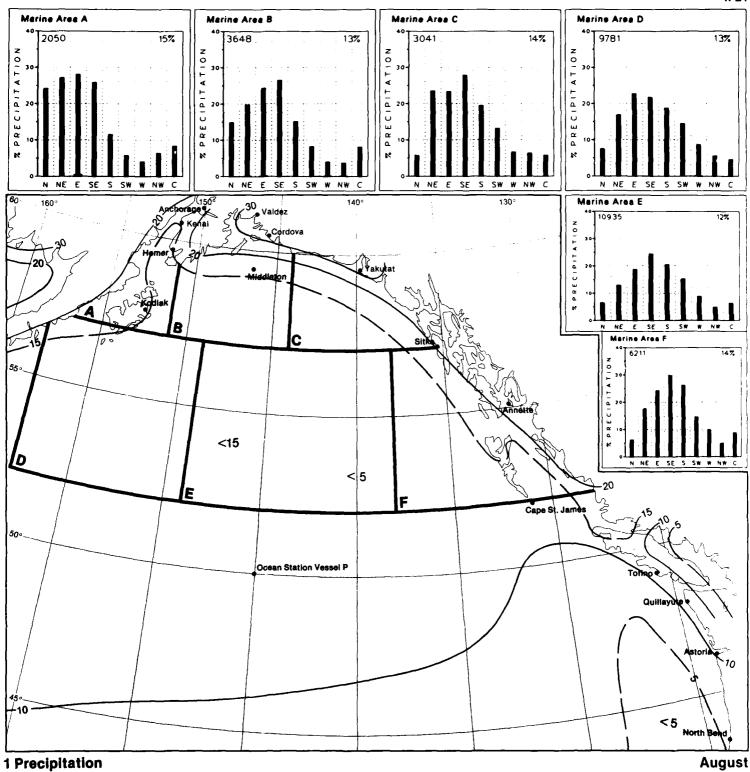


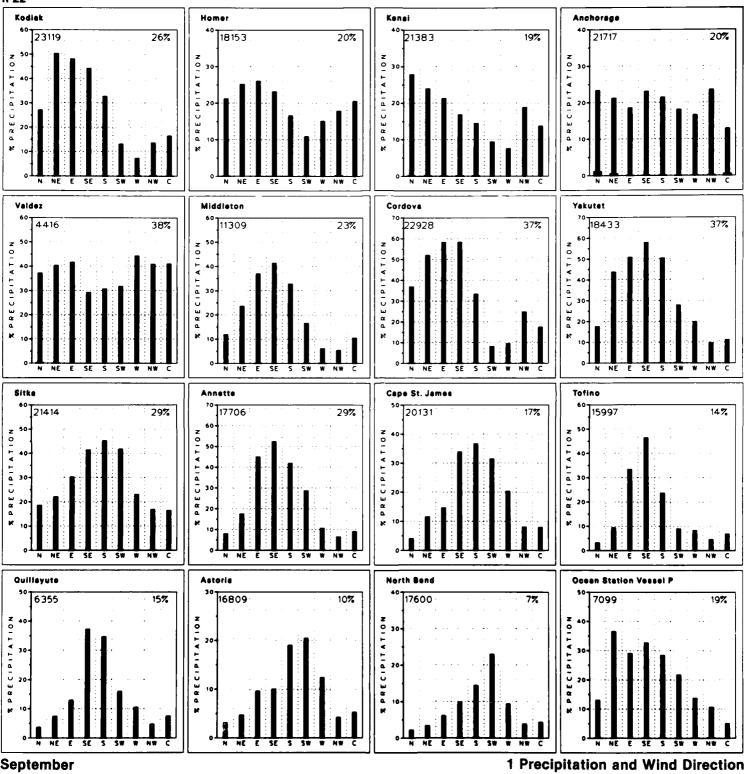




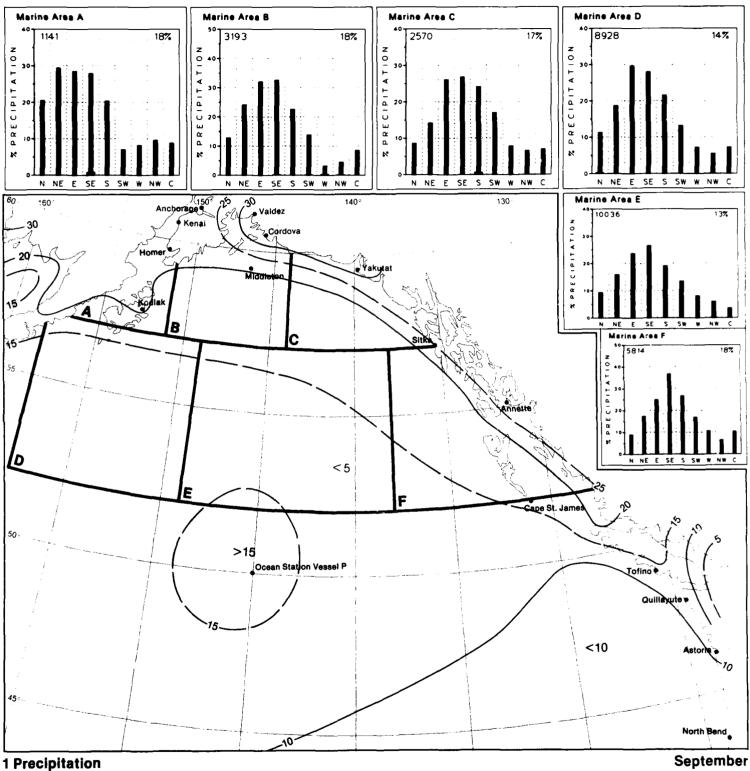


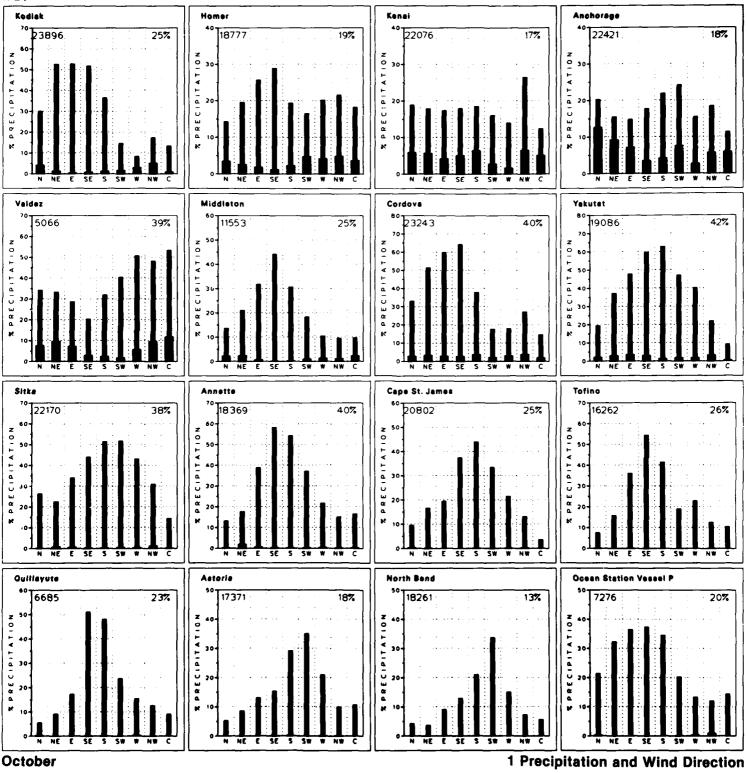


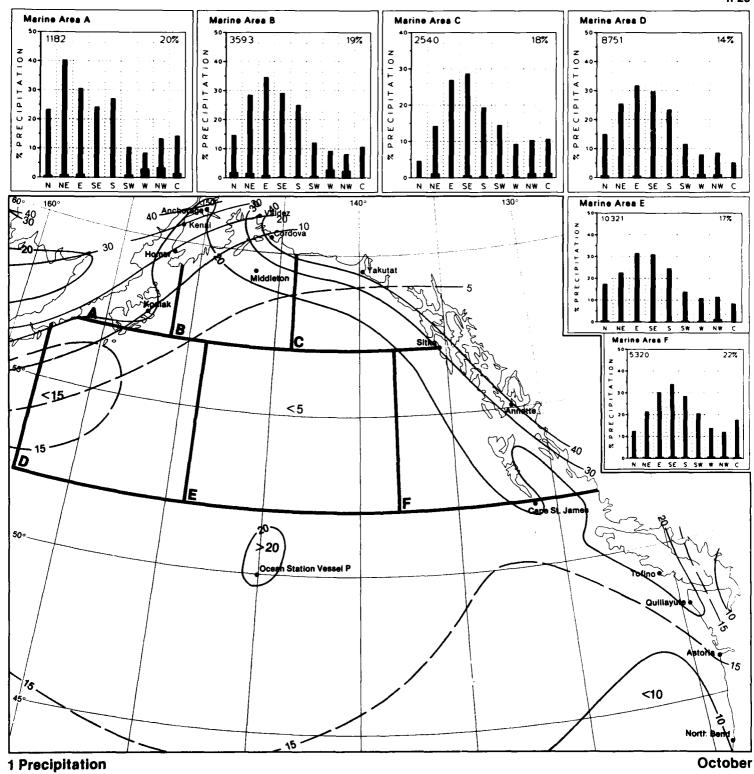


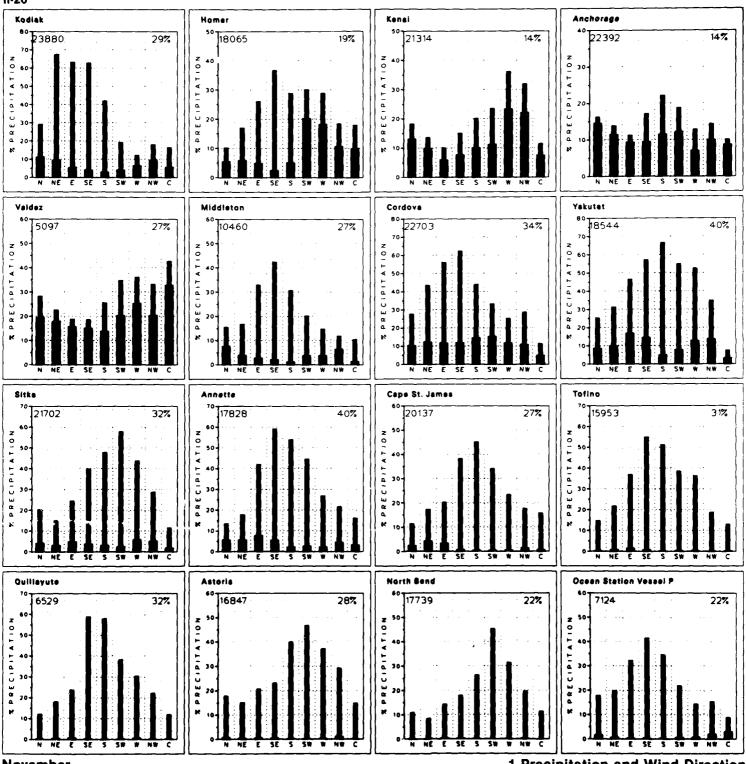


September



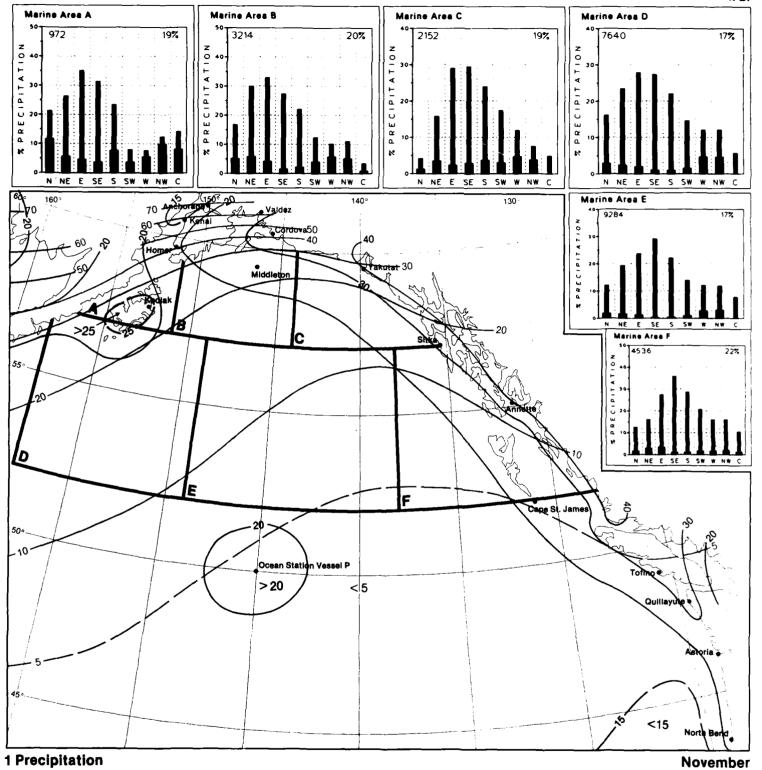


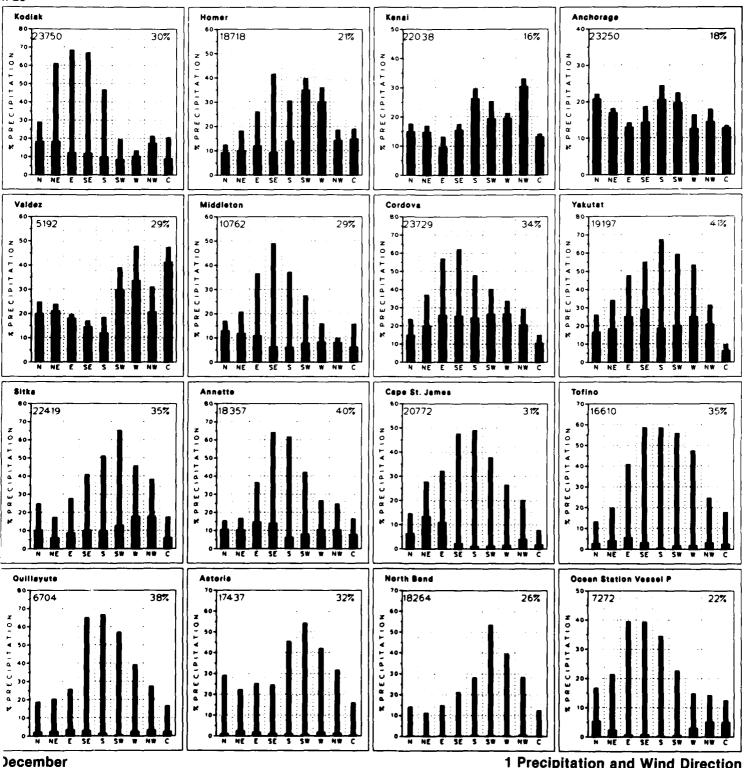




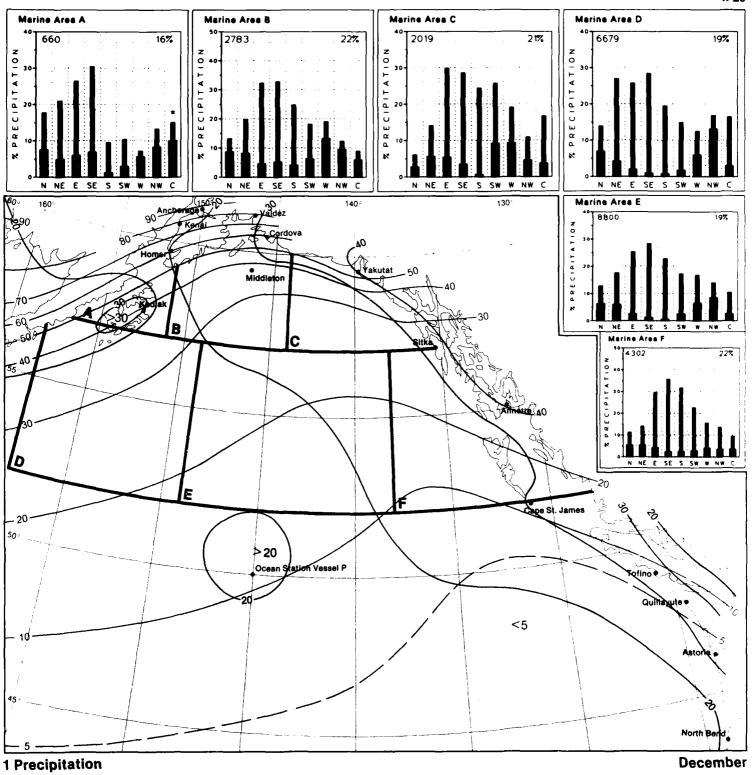
November

1 Precipitation and Wind Direction





1 Precipitation and Wind Direction



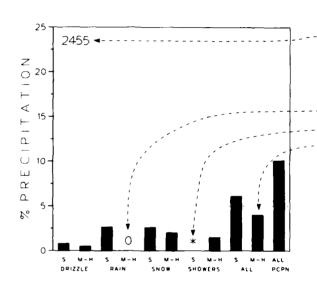
# Map 2. Wind/visibility/cloudiness

BLACK LINE — Percent frequency of optimum conditions: Low cloud ceiling (LCC) ≥5000 feet, (or no LCC), visibility ≥5 nautical miles and wind 11–21 knots.

BLUE LINE - Percent frequency of poor conditions. Any one of the following constitutes poor conditions: LCC <300 feet, visibility <1 nautical mile or wind <6 or ≥34 knots.

Albers Equal—Area Conic Projection

# **Graphs:** Precipitation types



Percent frequency of precipitation by type and intensity (S - slight, M - moderate and H- heavy).

Number of observations.

Bars show percent frequency of observations reporting Precipitation of various types and intensities.

O indicates no observations in the category

 $\star$  indicates <.05% but >0.

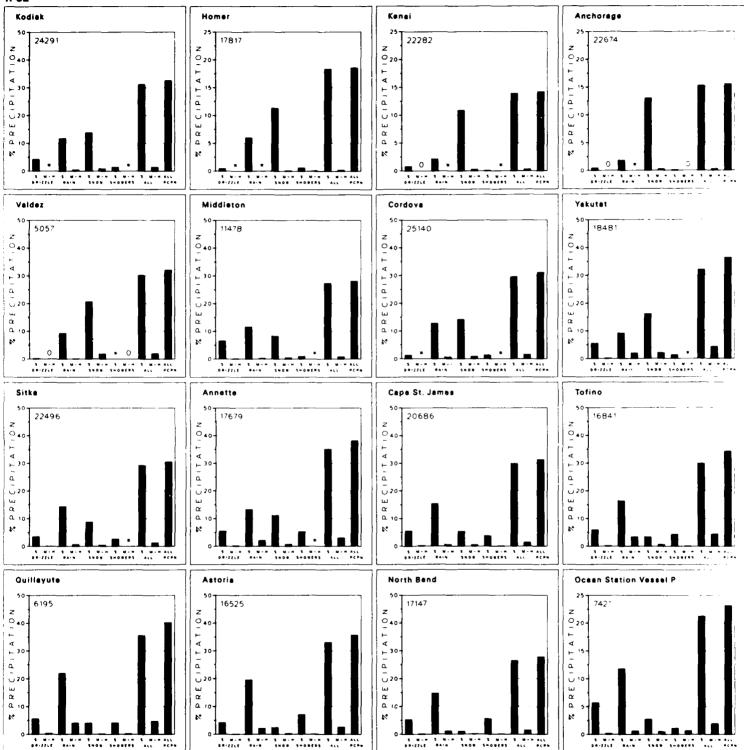
(4% of all observations recorded moderate to heavy precipitation.)

Present weather elements that can be reported in an observation are thunderstorms, lightning, waterspouts, squalls, fog. haze, smoke, dust, and all forms of precipitation. Most present weather codes (ww = 00-99, see table) apply to phenomena occurring at the time of observation, but a few refer to phenomena occurring in the past hour. The highest applicable numerical ww code figure is recorded (except that code 17 has preference over 20 to 49, inclusive). Precipitation includes all forms of water particles, whether liquid or solid, that fall to the earth's surface—rain, drizzle, snow, snow pellets, snow grains, ice crystals, ice pellets, and hail. Each form is classified by its character (continuous, intermittent, showery, or combination), intensity (slight, moderate, or heavy), and type (liquid, freezing, or frozen). In this study, frozen precipitation is defined as any precipitation that reaches the ground in frozen form; it does not include liquid that freezes upon impact with the ground or exposed objects. Refer to the text in Set 1 for additional information on precipitation.

## PRESENT WEATHER (WMO Code, 1982)

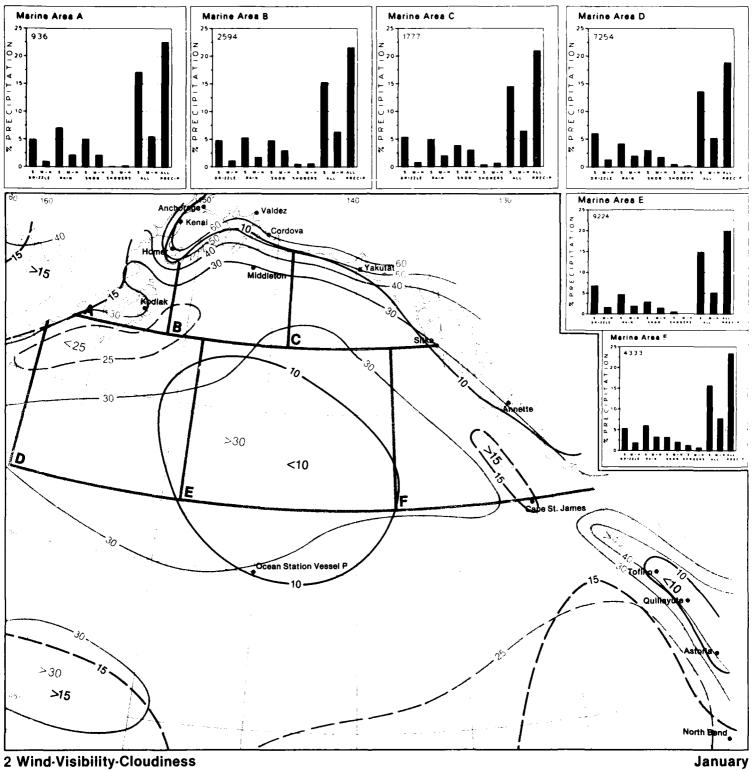
The present weather (ww) code is arranged in priority order. Reading down the list, select the first applicable (most severe) weather condition that you observe and enter the code number for ww.

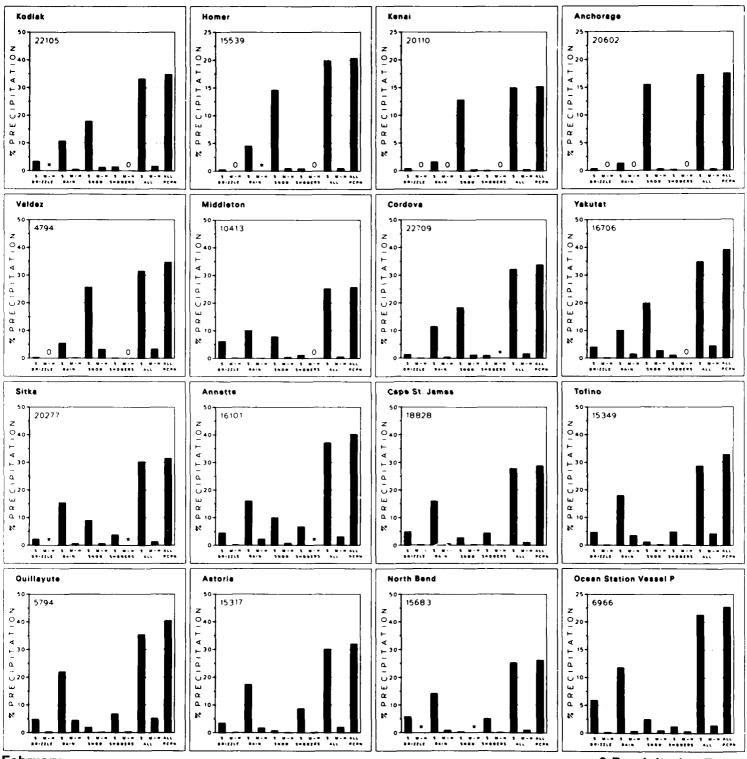
	50-99 PRECIPITATION AT SHIP A OBSERVATION	T TIME OF	74 72	mittent Heavy snow in flakes Moderate snow in flakes	Cor	ntinuous 75 73	32 31 30	Duststorm or sandstorm, increasing Duststorm or sandstorm, unchanging Duststorm or sandstorm, decreasing	35 34 33
95	5-99 THUNDERSTORM AT TIME OF (	DBSERVATION	70	Slight snow in flakes		71	_		
99	Heavy thunderstorm with hail*			60-69 RAIN (NOT FALLING	AS SHOWERS)		2	20-29 PHENOMENA IN PAST HOUR BUT I TIME OF OBSERVATION	NOT AT
98	Thunderstorm with duststorm or s		Sligh		Moderate o		••	<b>-</b>	
97	Heavy thunderstorm with rain and/ but no hail*	or snow,	68	Rain or drizzle with snow		69	29 28	Thunderstorm, with or without precipita	
96	Slight or moderate thunderstorm w	vith hail*	66	Freezing rain		67	27	Fog (in past hour but not at time of obs Shower(s) of hail*, or of hail*, and rain	i) mixed
95	Slight or moderate thunderstorm w		Inter	mittent	Cor	ntinuous	26	Shower(s) of snow, or of rain and snow	
	snow, but no hail*		64	Heavy rain	• • • • • • • • • • • • • • • • • • • •	65	25	Shower(s) of rain	
			62	Moderate rain		63	24	Freezing drizzle or freezing rain	
*Incl	udes hail, ice pellets, or snow pellet	S	60	Slight rain		61	23	Rain and snow mixed, or ice pellets	Not falling
01.0	4 THUNDERSTORM DURING THE P	ACT HOUR BUT		50 50 BB1771	-		22 21	Snow Rain (not freezing)	as showers
91.9	NOT AT THE TIME OF OBSERV			50-59 DRIZZL	.t		20	Drizzle (not freezing) or snow grains	
	MOTINE TIME OF GEOLITI	711011	Sligh	•	Moderate	or heavy		ovizzie (not necessary or snow grains )	
	: Use code 29 if there is no precipi rvation.	tation at time of	58 56	Drizzle and rain mixed Freezing drizzle		59 57	*Inclu	udes hail, ice pellets or snow pellets	
				-	_			18-19 SQUALLS, FUNNEL CLOUDS	3
94	Moderate or heavy snow, or rain			mittent	Cor	ntinuous			
93	and snow mixed, or hail* Slight snow, or rain and snow	Thunderstorm	54 52	Heavy drizzle Moderate drizzle		55 53	19	Funnel cloud(s) seen in past hour or at	
93	mixed, or hail*	in past	50	Slight drizzle		51	18	Squalls (no precip.) in past hour or at ti	me or obs
92 91	Moderate or heavy rain Slight rain	hour		ong. Constant			13.	16 PHENOMENA WITHIN SIGHT BUT NO	T AT SHIP
	,						16	Precip, within 3 naut, mi reaching sur	
*Incli	udes hail, ice pellets, or snow pellet:	S		00-49 NO PRECIPITATION AT	SHIP AT TIME	OF	15	Precip. beyond 3 naut. mi -reaching si	
				OBSERVATION			14 13	Precipitation in sight, not reaching surf	ace
	85-90 SOLID PRECIPITATION IN S	HOWERS					13	Lightning visible, no thunder heard	
Sligh		Moderate or Heavy	17	Thunder at time of observal	ion no precipit	ation		10-12 MIST AND SHALLOW FOG	Fog not
89	Shower or hail*, no thunder	90	17	at ship	non, no precipit	ation	12	Shallow fog-more or less continuous	
87	Shower of snow pellats or ice pelle			at simp			11	Shallow fog in patches	I than 10 m
85	Shower of snow	86		40-49 FOG AT TIME OF C	BSERVATION		10	Mist (Visibility 1/2 nautical mile or more	i (33 feet)
	h or without rain, or rain and snow r lude hail, ice pellets, or snow pellets			(Visibility in fog is less than	½ nautical mil	<b>e</b> )		04-09 HAZE. DUST, SAND, OR SMOR	KE
			Sky			Sky	09	Duststorm or sandstorm within sight	
	80-84 RAIN SHOWERS		visib			invisible	08	Dust whirls in past hour (NOT FOR MA	RINE USE:
84	Shower of rain and snow mixed, n	noderate or heavy	48	Fog, depositing rime	in part hour	49 47	07 06	Blowing spray at ship Widespread dust suspended in the air	
83	Shower of rain and show mixed, in		46 44	Fog. has begun or thickened Fog. no change in past hour	in past nour	45	05	Dry haze	
82	Violent rain shower		42	Fog. has become thinner in I	ast hour	43	04	Visibility reduced by smoke	
81	Moderate or heavy rain shower		41	Fog in patches					
80	Slight rain shower		40	Fog at a distance but not a	t ship in past ho	our		00-03 CHANGE OF SKY DURING PAST	HOUR
70-79	SOLID PRECIPITATION NOT FALLI	NG AS SHOWERS		30-39 (Not likely to be used	I in ship reports	)	Code tigs.		
79	ice pellets		Sligh				03	Clouds generally forming or developing	
78	Isolated star-like snow crystals(wi	th or without tog)		erate		Heavy	02	State of the sky on the whole unchange	
77 76	Snow grains (with or without fog)  Diamond dust (with or without fog)	1)	38	Blowing snow, high (above e		39 37	01 00	Clouds dissolving or becoming less dev	veloped
10	Diamond dust (with or without log	,,	36	Drifting snow, low (below ey	e ievei)	31	UU	Cloud development not observable	



January

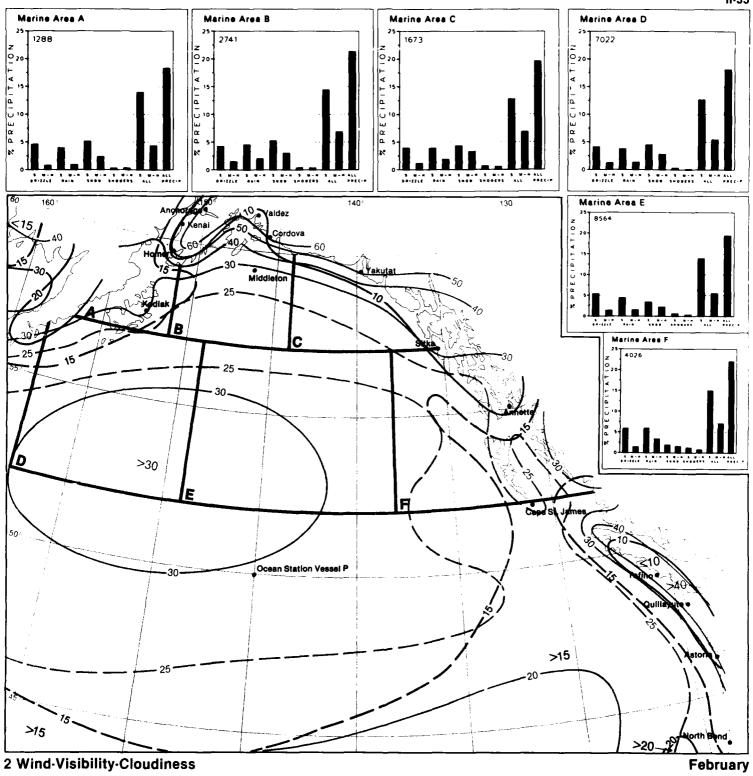
2 Precipitation Types

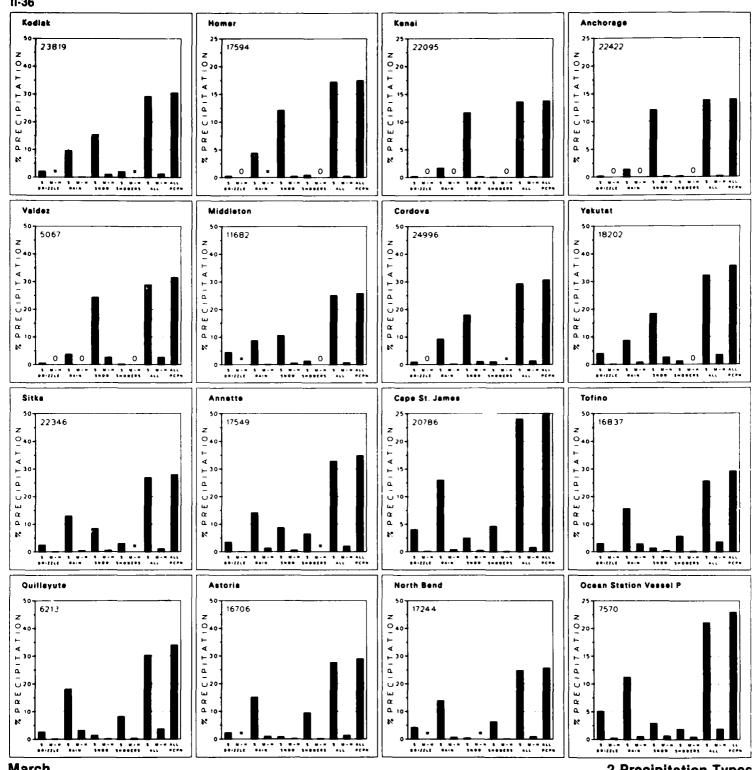




**February** 

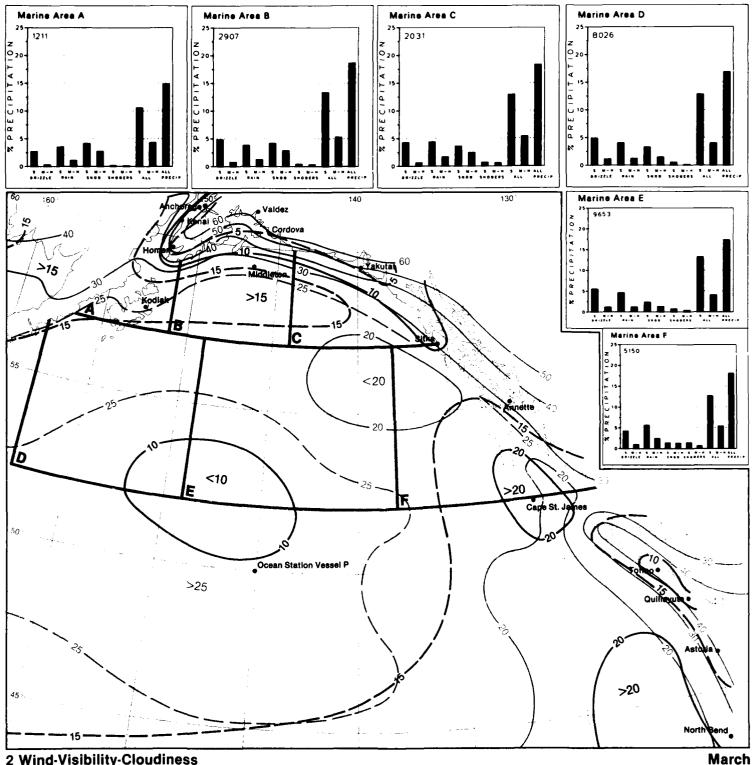
2 Precipitation Types



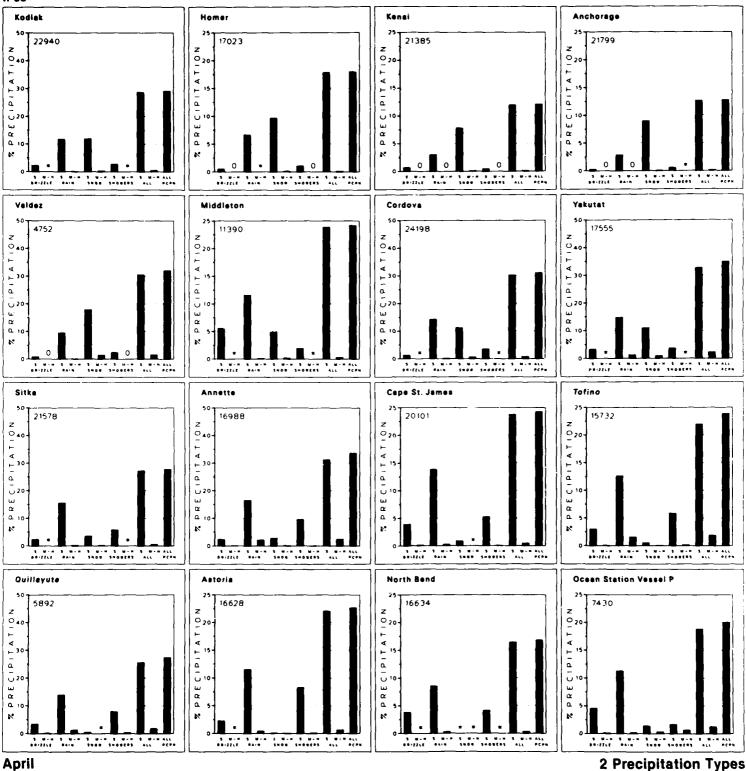


March

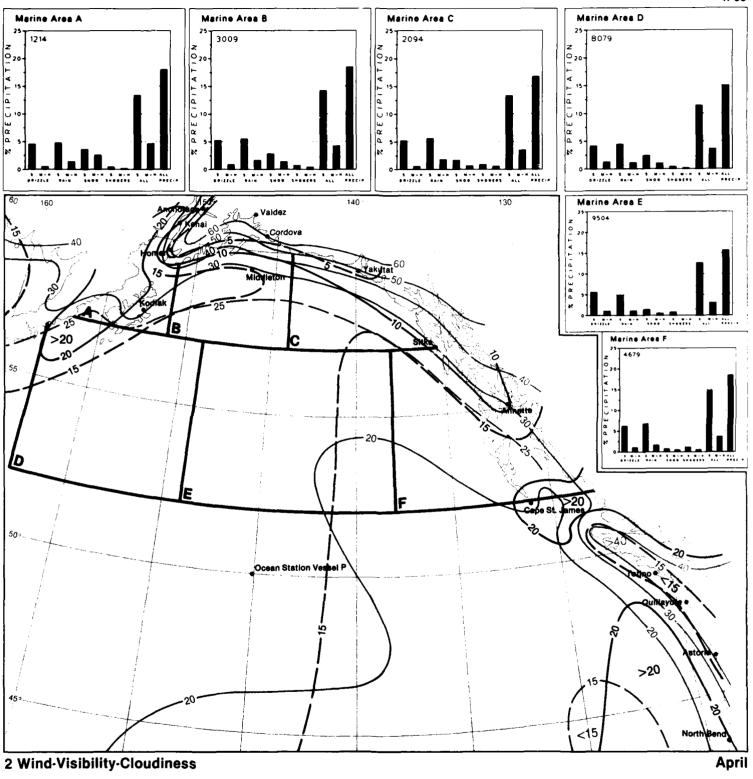
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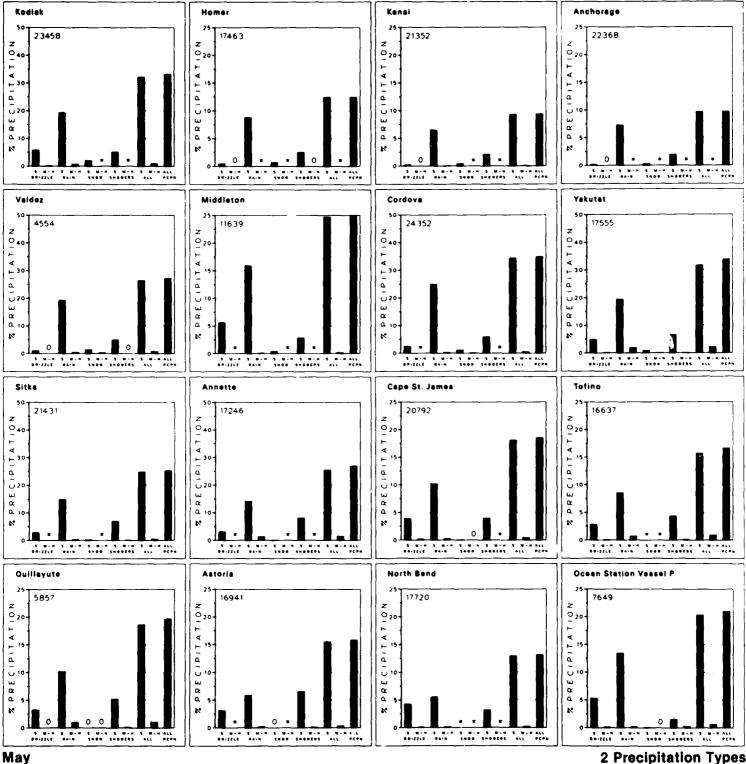


2 Wind-Visibility-Cloudiness

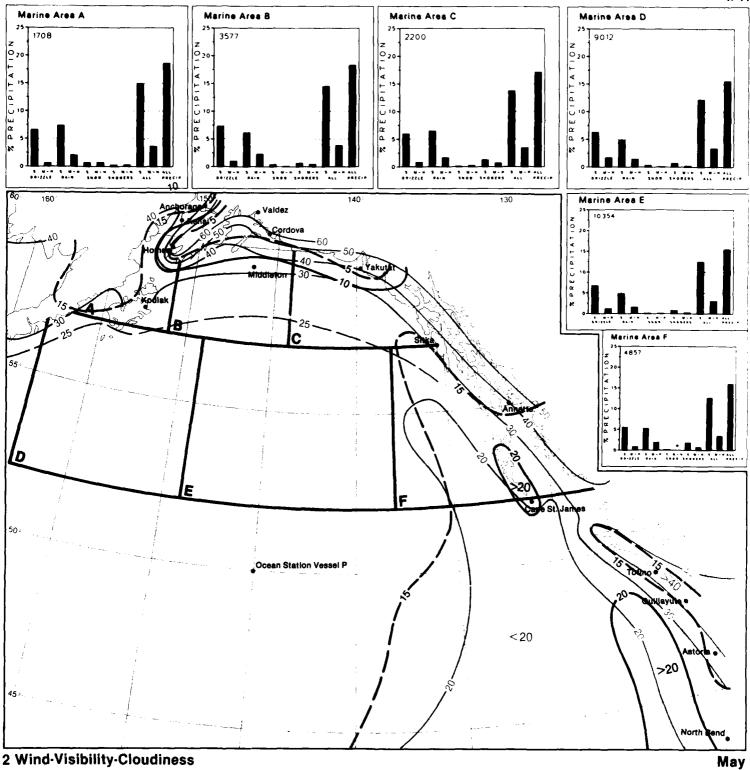


2 Precipitation Types

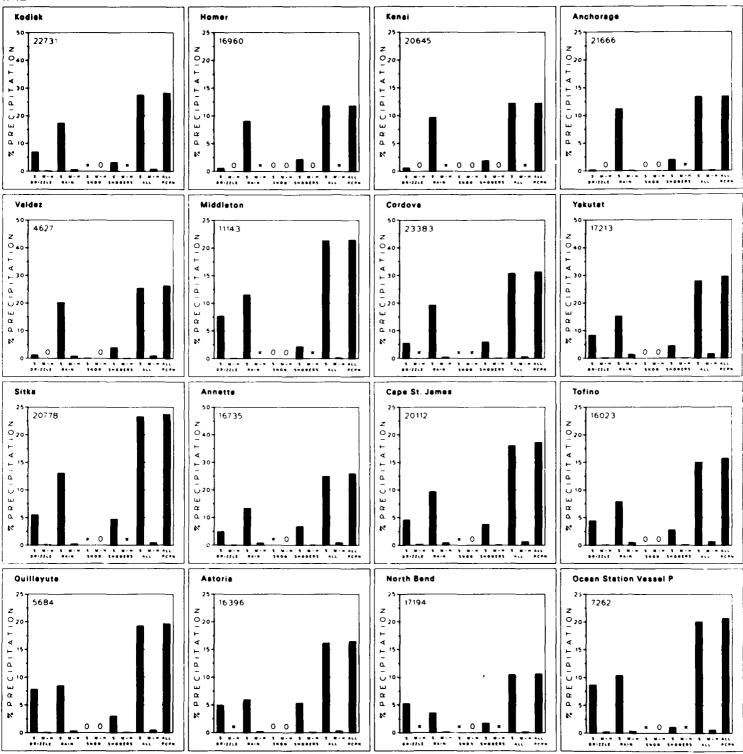




2 Precipitation Types

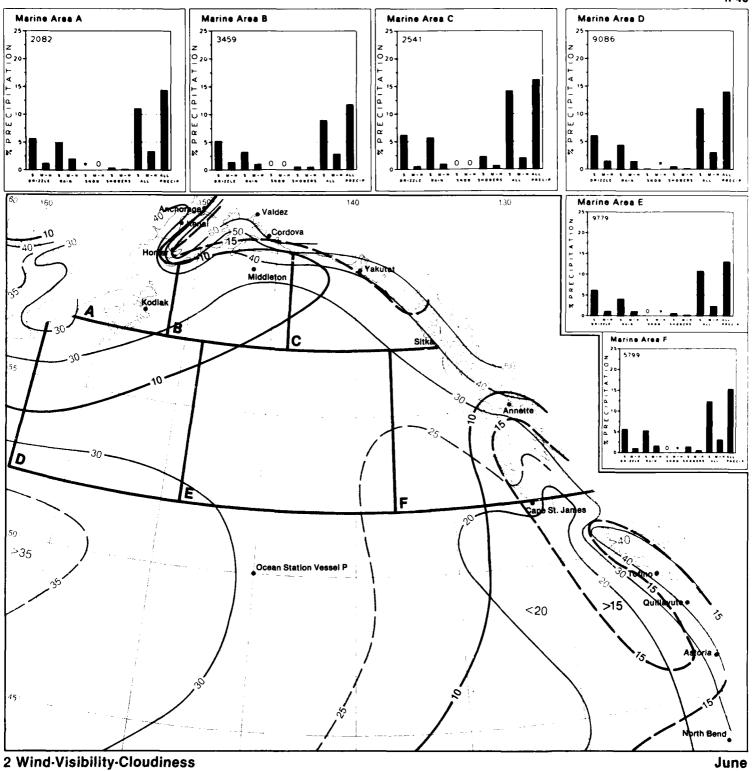


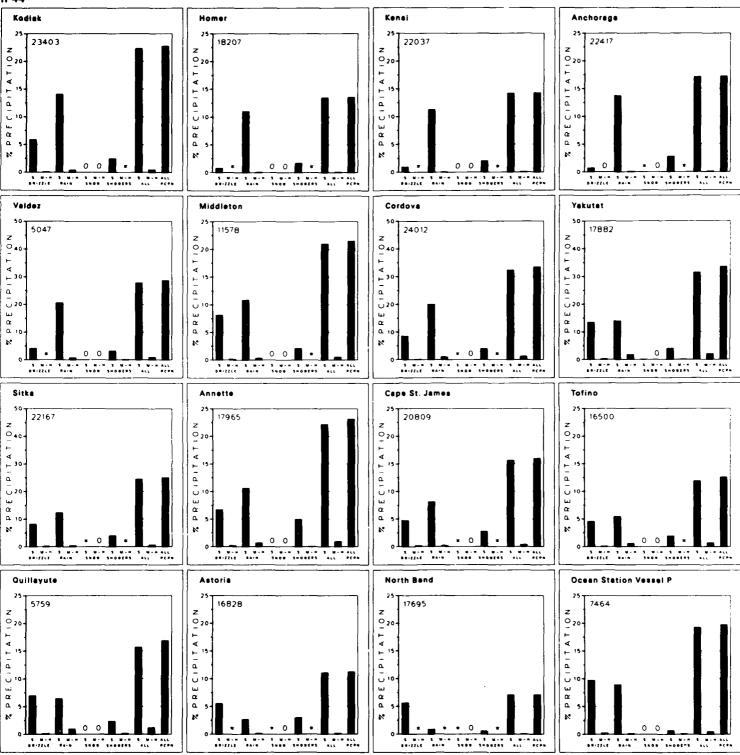
2 Wind-Visibility-Cloudiness



June

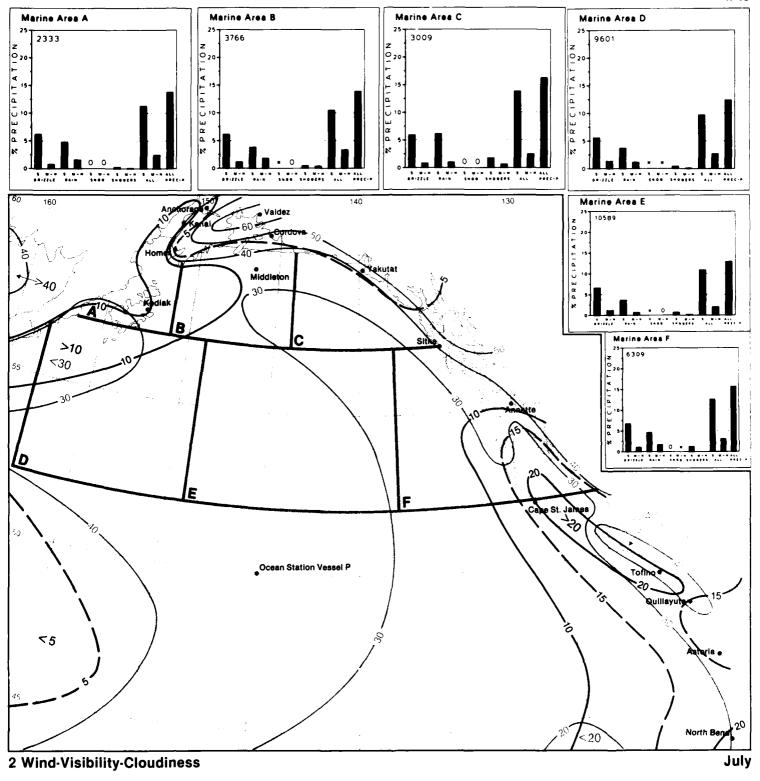
2 Precipitation Types

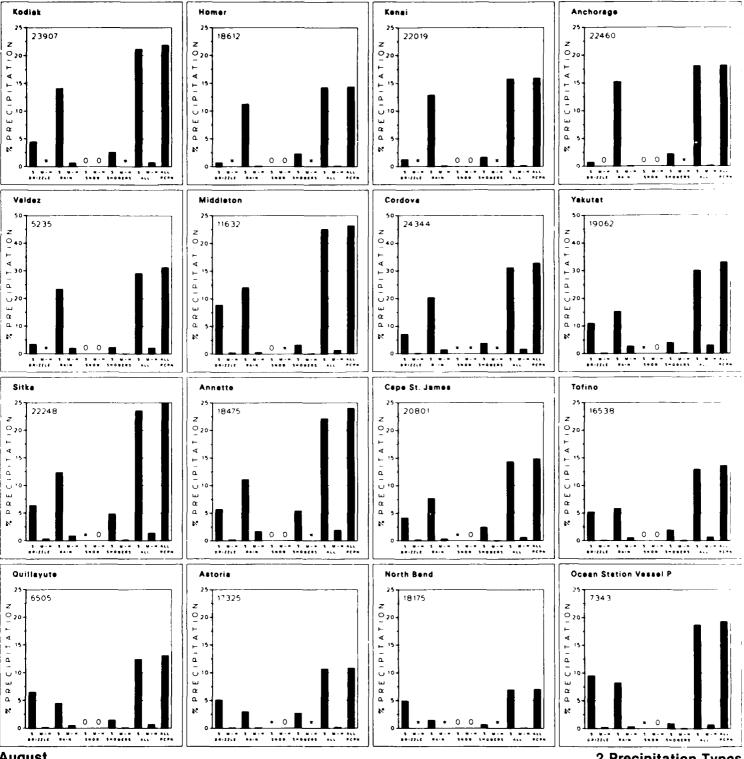




July

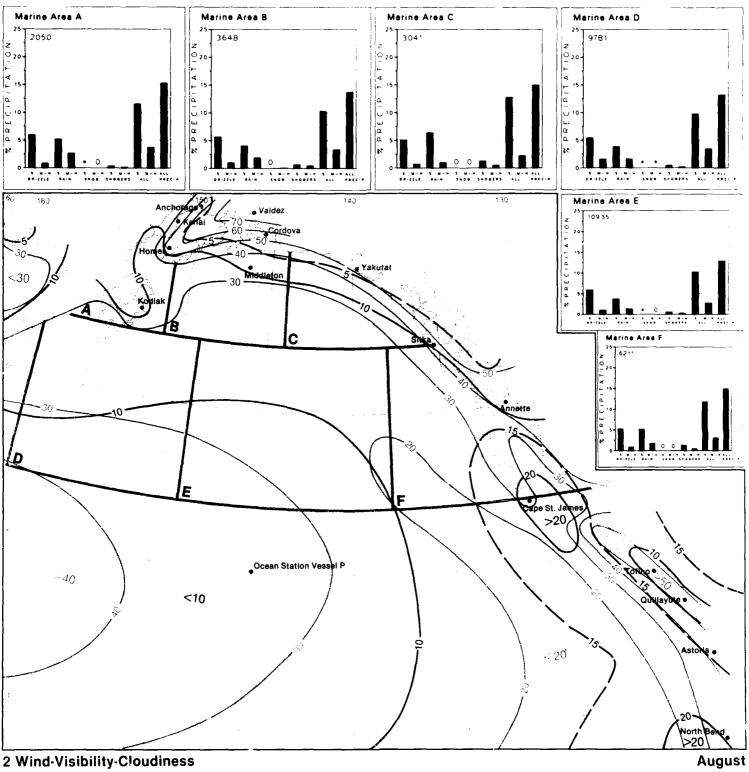
2 Precipitation Types



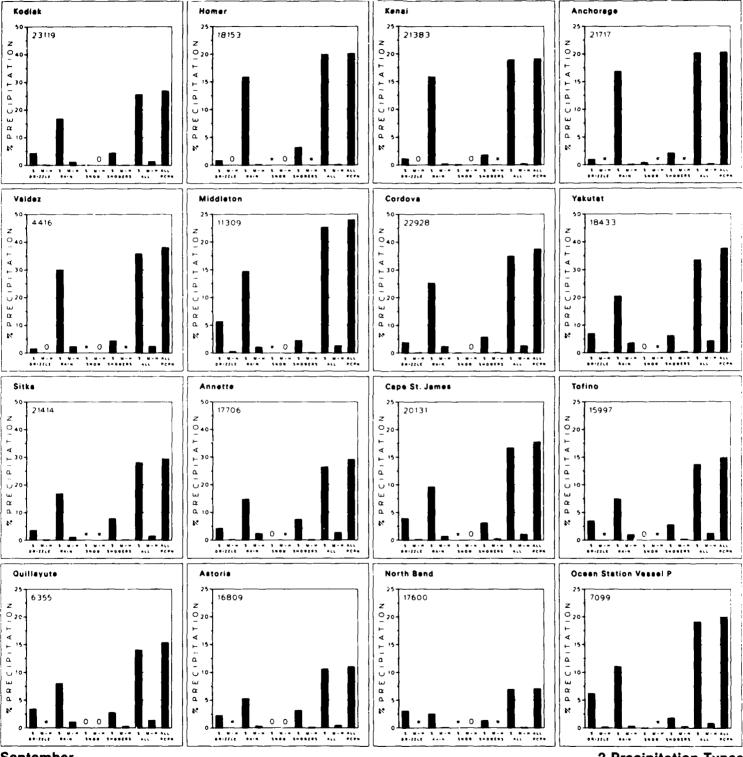


**August** 

2 Precipitation Types

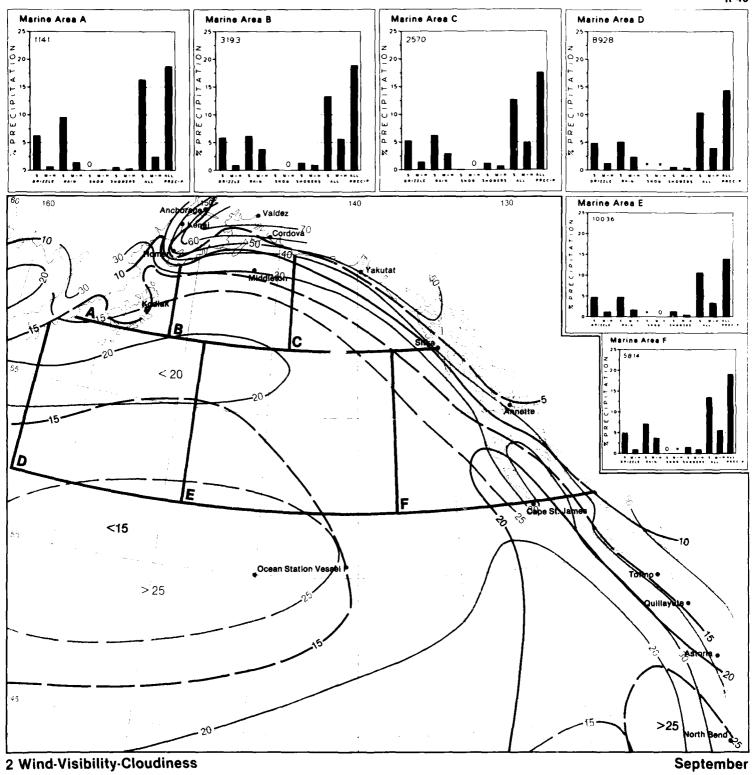


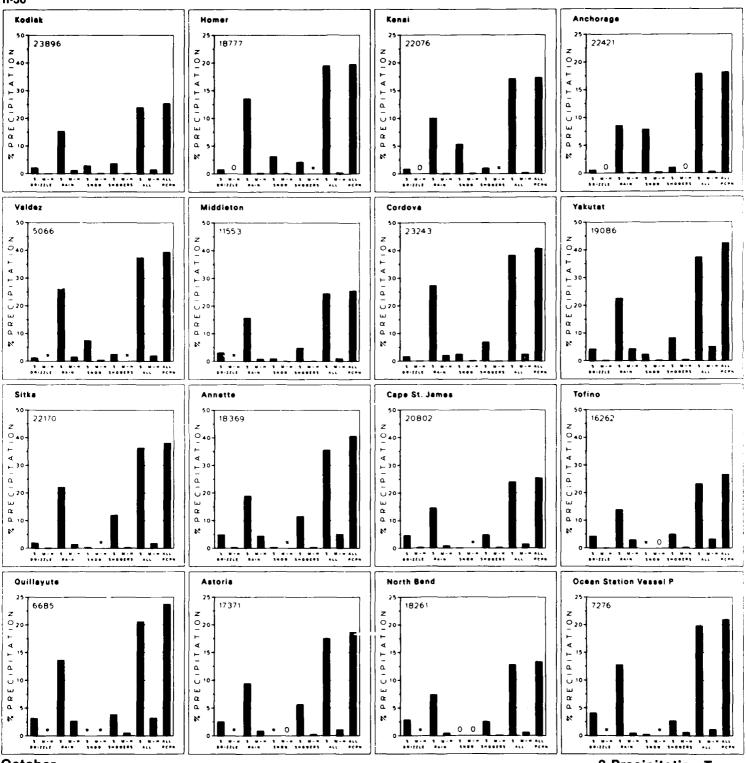
2 Wind-Visibility-Cloudiness



September

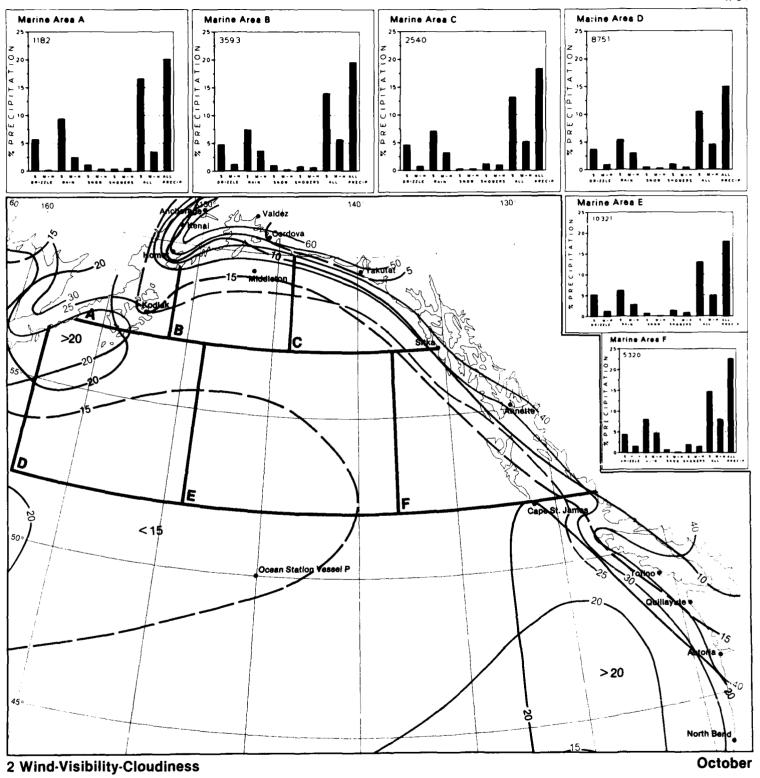
2 Precipitation Types

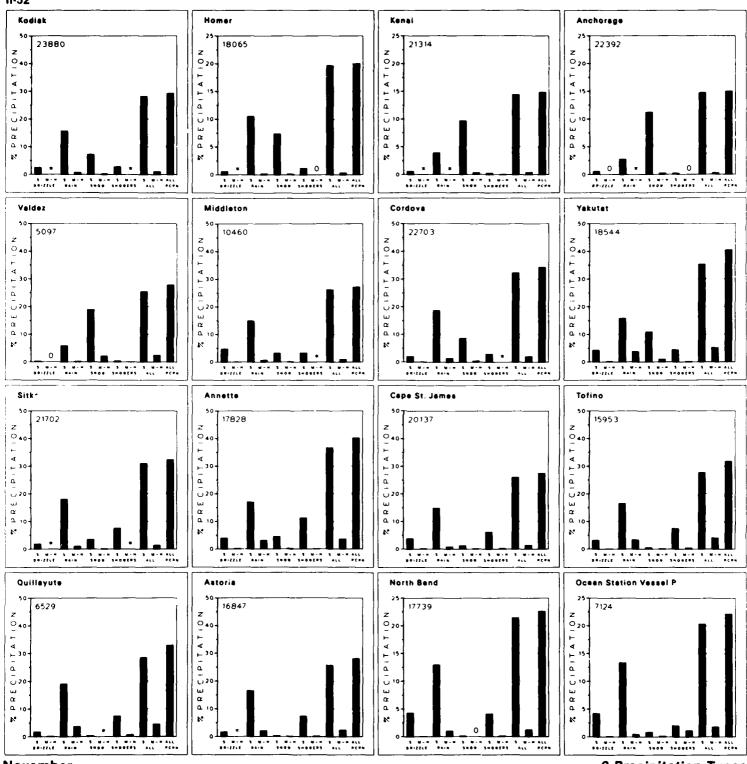




October

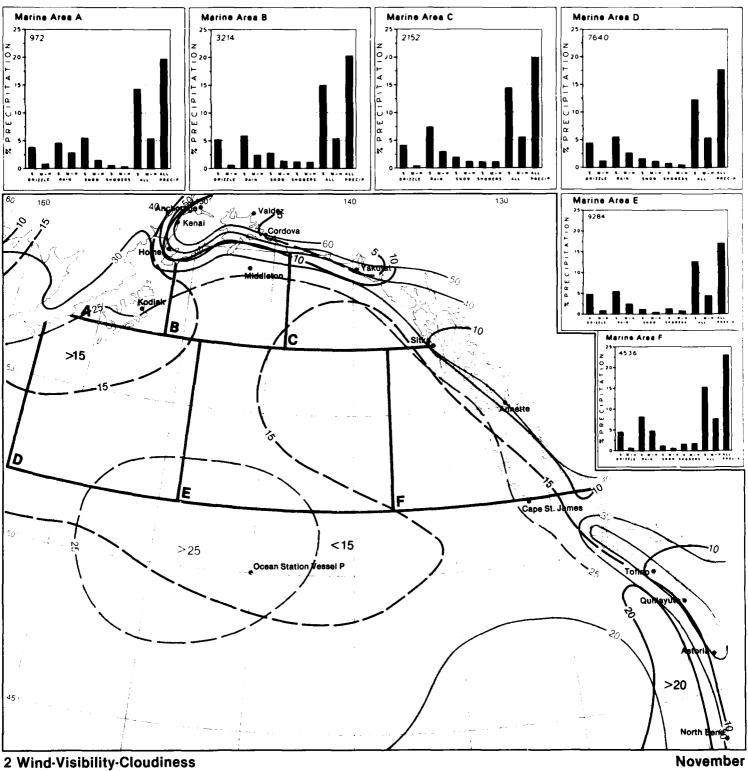
2 Precipitation Types

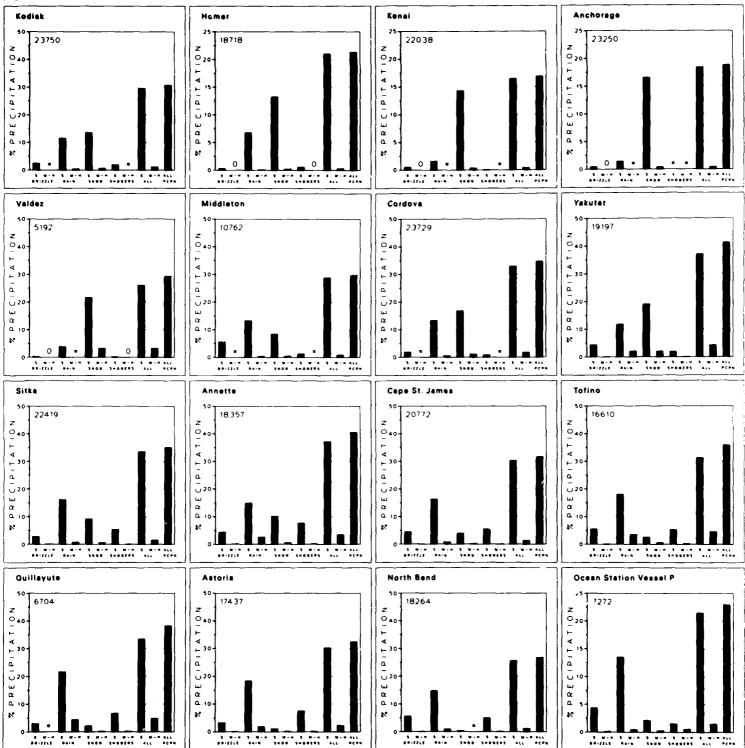




November

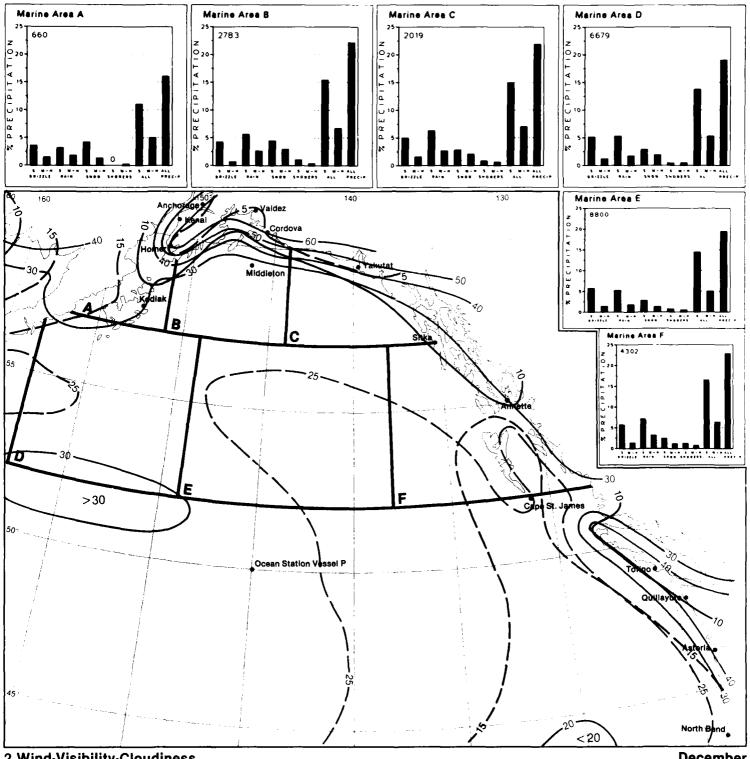
2 Precipitation Types





December

2 Precipitation Types



2 Wind-Visibility-Cloudiness

**December** 

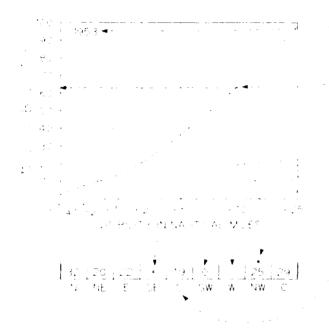
## Map 3. Ceiling/visibility (low range)

BLACK LINE - Percent frequency of low cloud ceiling (LCC) 300 feet and/or visibility 1 nautical mile.

BLUE LINE - Percent frequency of LCC <600 feet and/or visibility 2 nautical miles.

Albers Equal-Area Conic Projection

## Graphs: Visibility/wind direction



-- Number of observations.

Curve is the cumulative percent frequency of visibilities less than the visibility intersected by the curve.

(63% of all visibilities reported were - 10 nautical miles.)

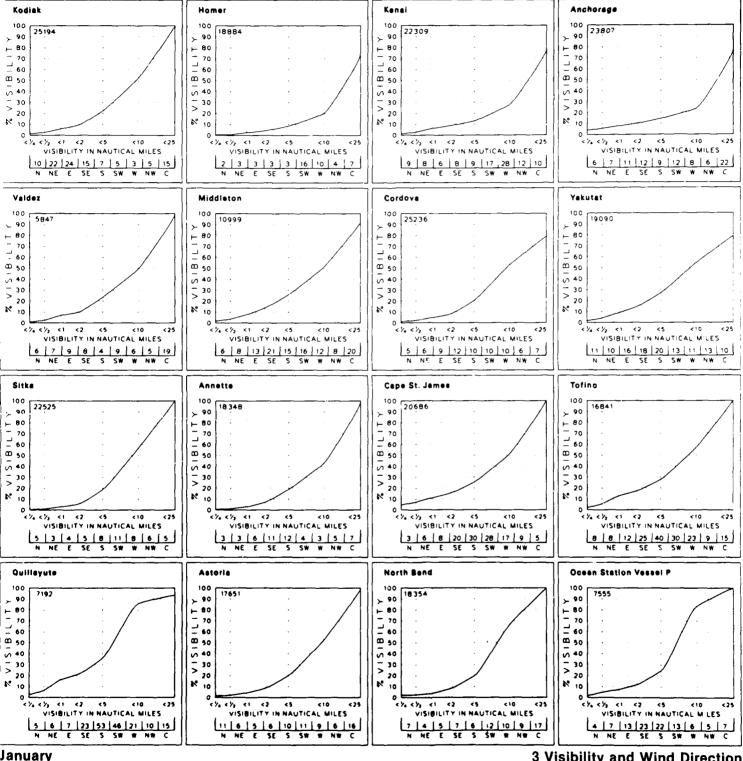
The table below the graph indicates percent frequency of occurrence of visibility - 2 nautical miles versus wind direction

indicates < .5% but < 0. <a>0</a> indicates that no visibilities < 2 nautical miles were observed with winds from a direction or calm. No percentage is given if less than 10 observations were available for visibility and wind direction. An asterisk indicates that the percentage was based on 10-30 observations of visibility and wind direction.

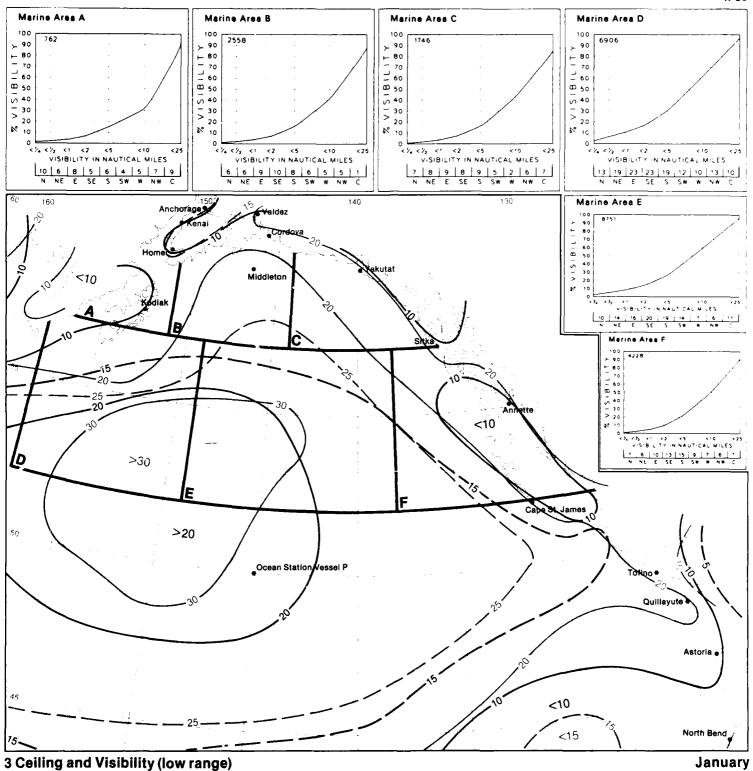
(19% of all S winds were accompanied by visibilities  $\sim 2$  nautical miles.)

The percent frequency of visibilities equal to or greater than a given value can be obtained from the graph by subtracting the cumulative percent frequency of that value from 100%. Refer to the text in Set 5 for descriptive information on visibility.

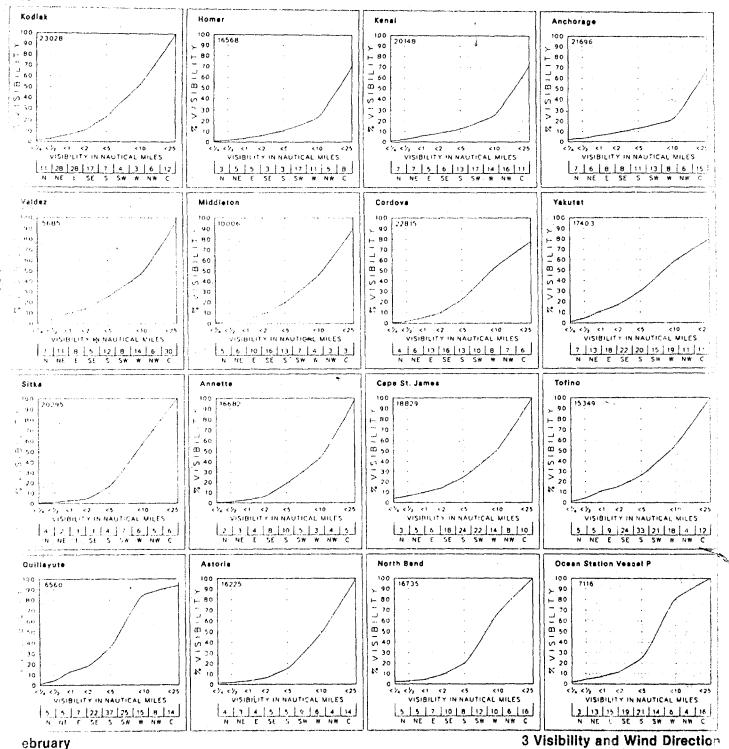
Aircraft-type ceilings are not available from marine observations. The ceilings are estimated from the height of the lowest cloud when low clouds (heights of less than 8,000 feet) cover more than half the sky. When the sky is totally obscured by snow, rain, fog, or other phenomena, the total obscuration is considered a ceiling with a height of zero. Refer to the texts in Sets 4 and 6 for additional information on clouds.

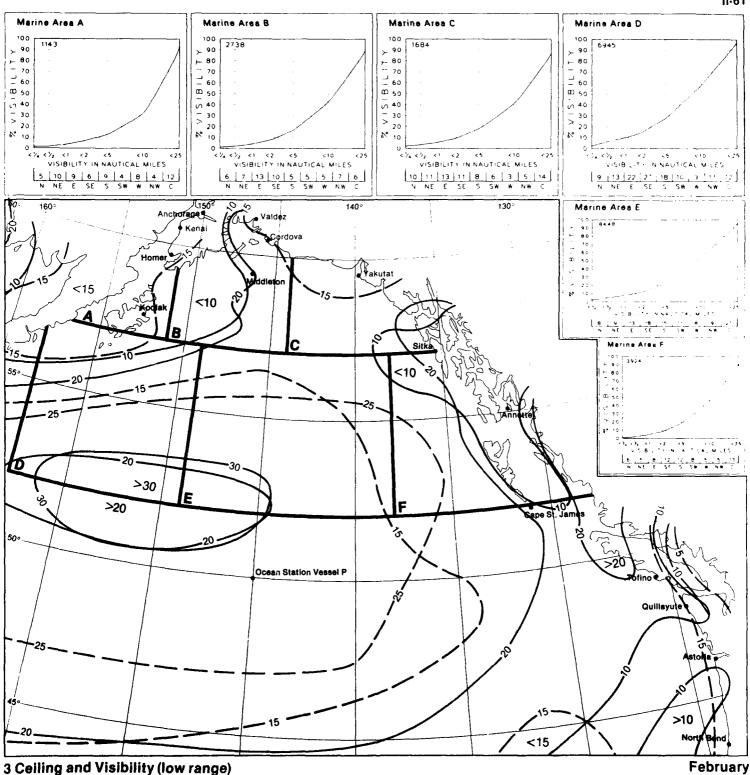


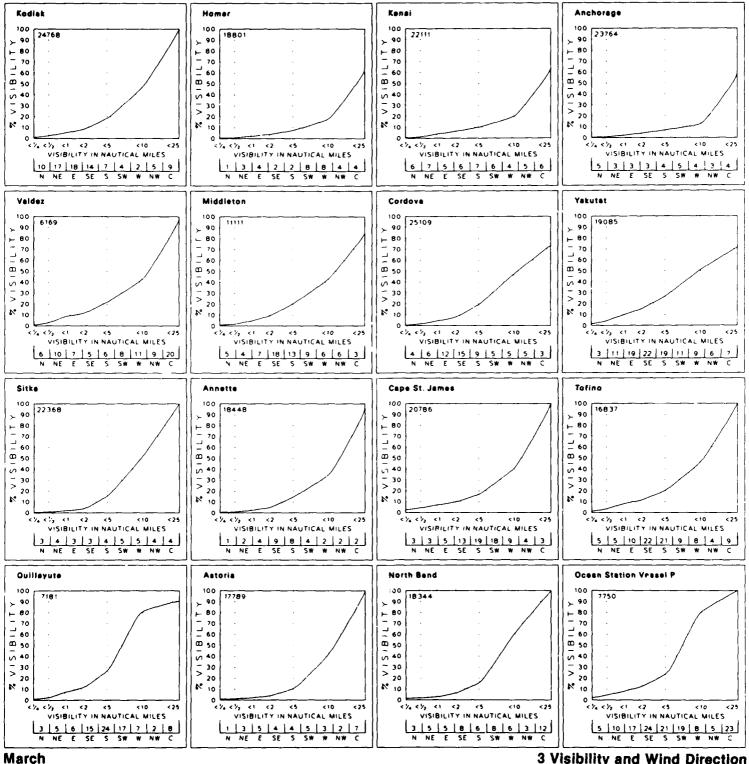
3 Visibility and Wind Direction



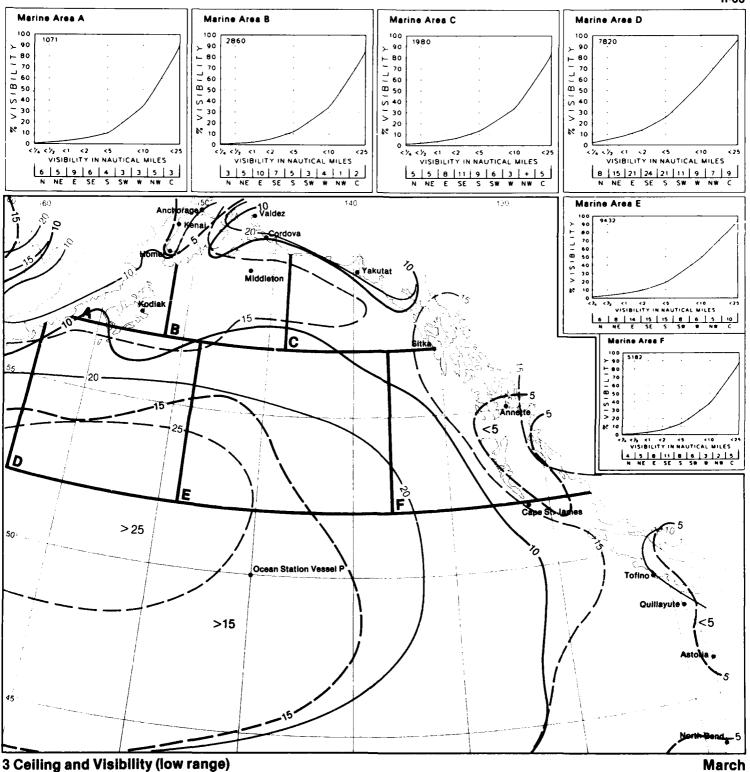
**January** 



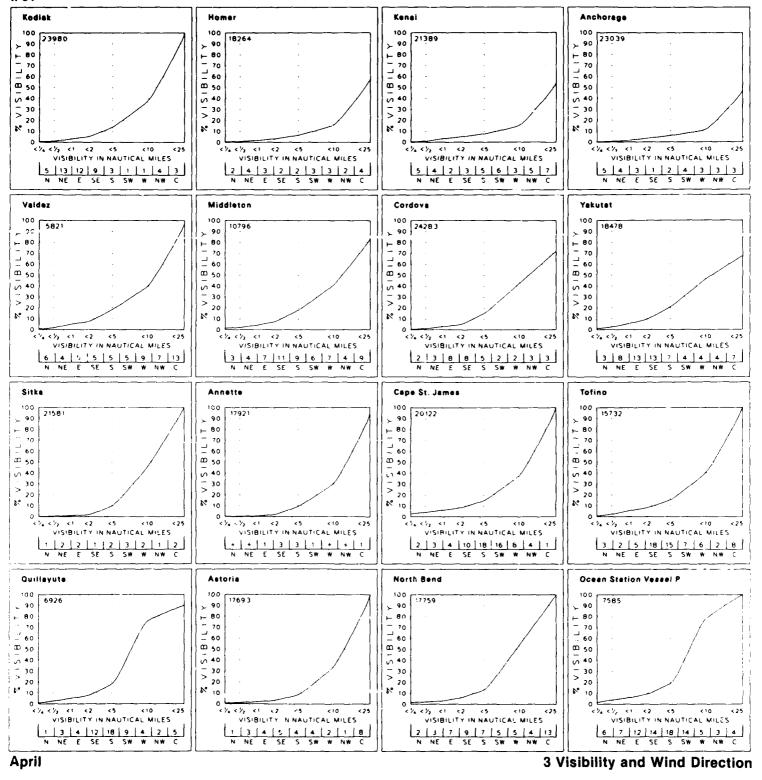


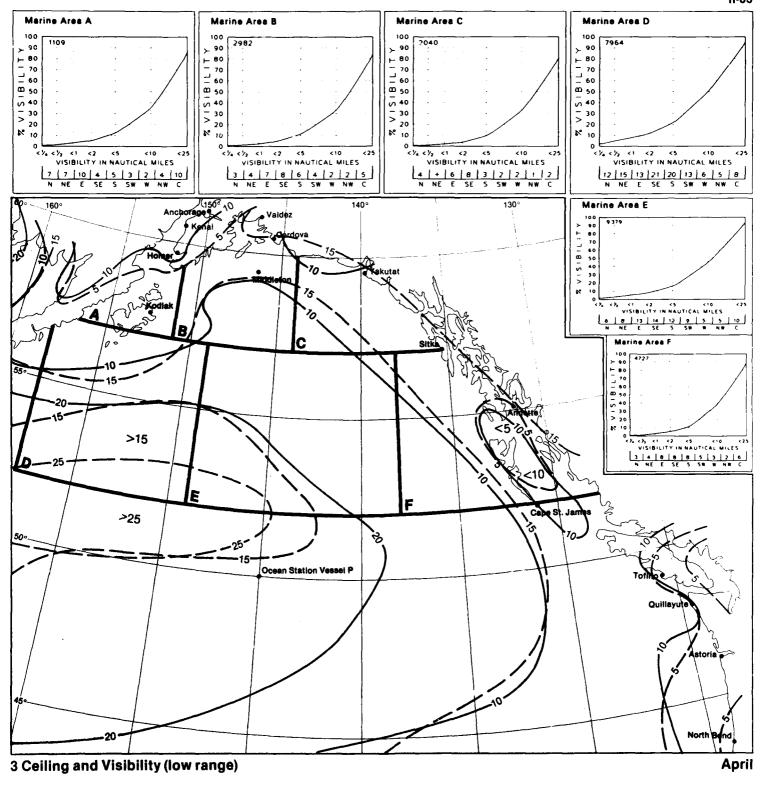


3 Visibility and Wind Direction

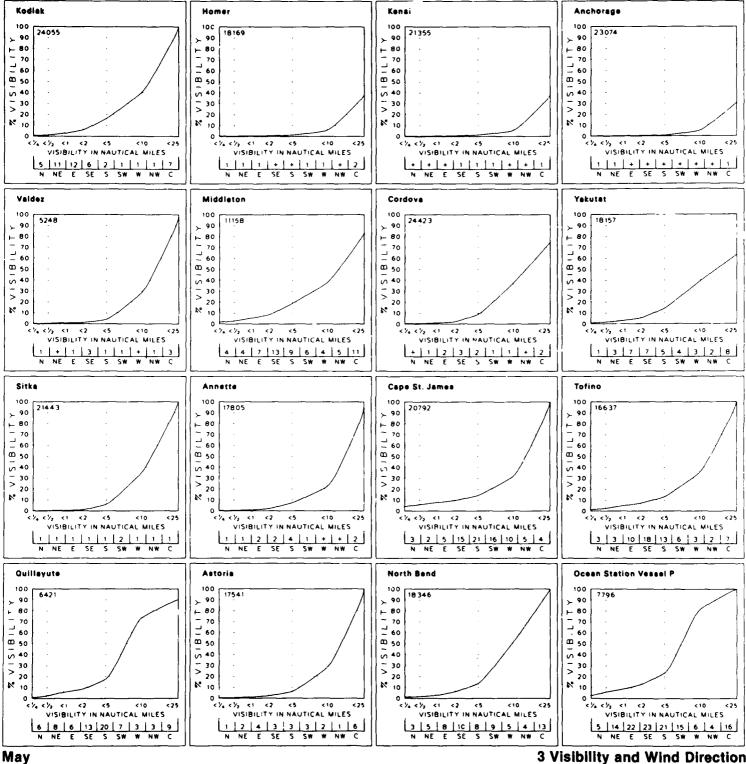


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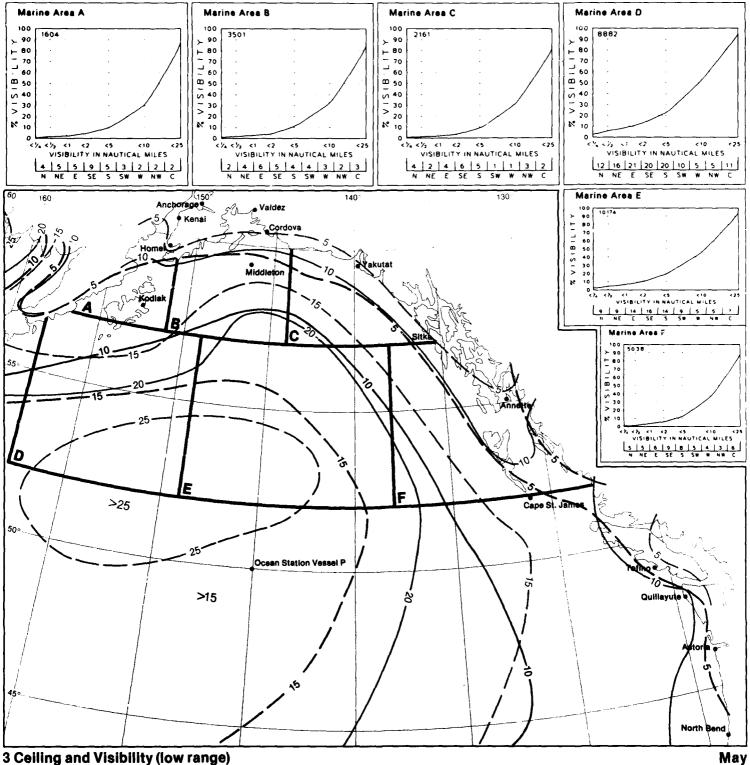




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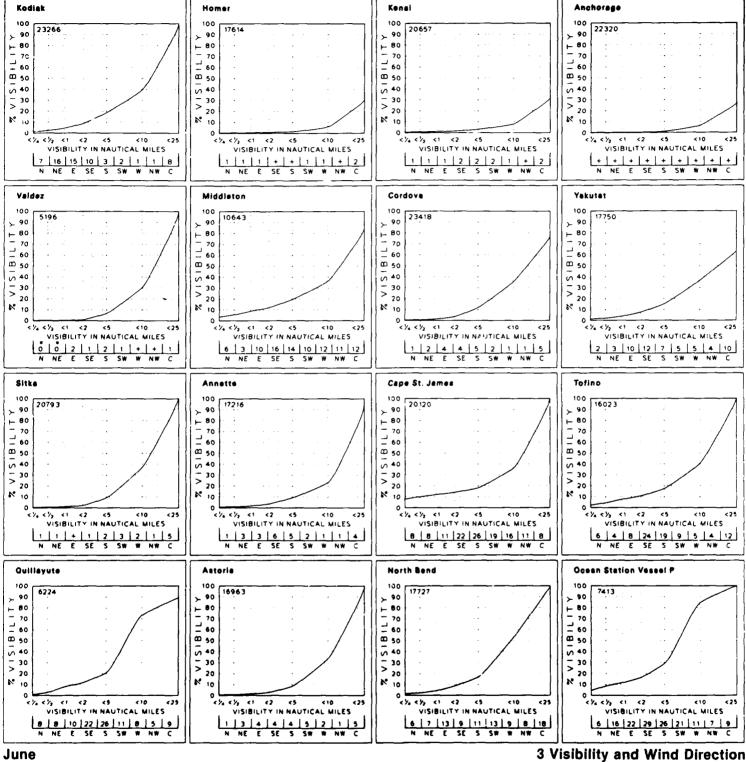


3 Visibility and Wind Direction

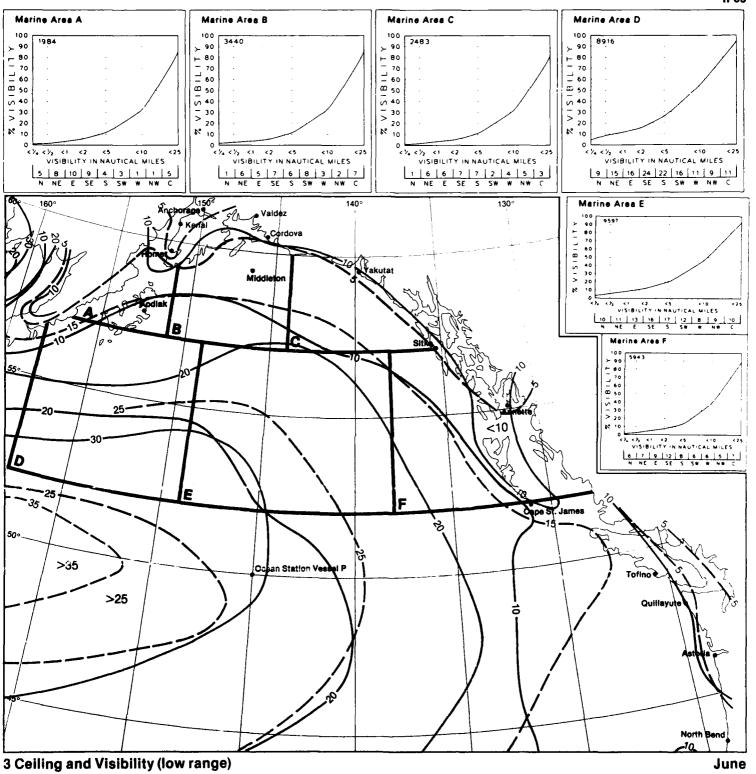


3 Ceiling and Visibility (low range)

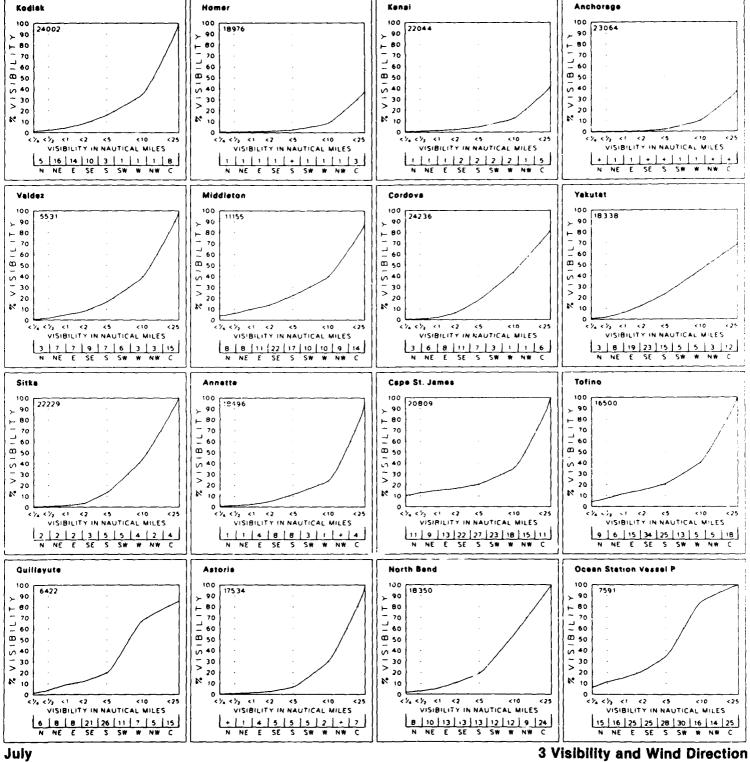
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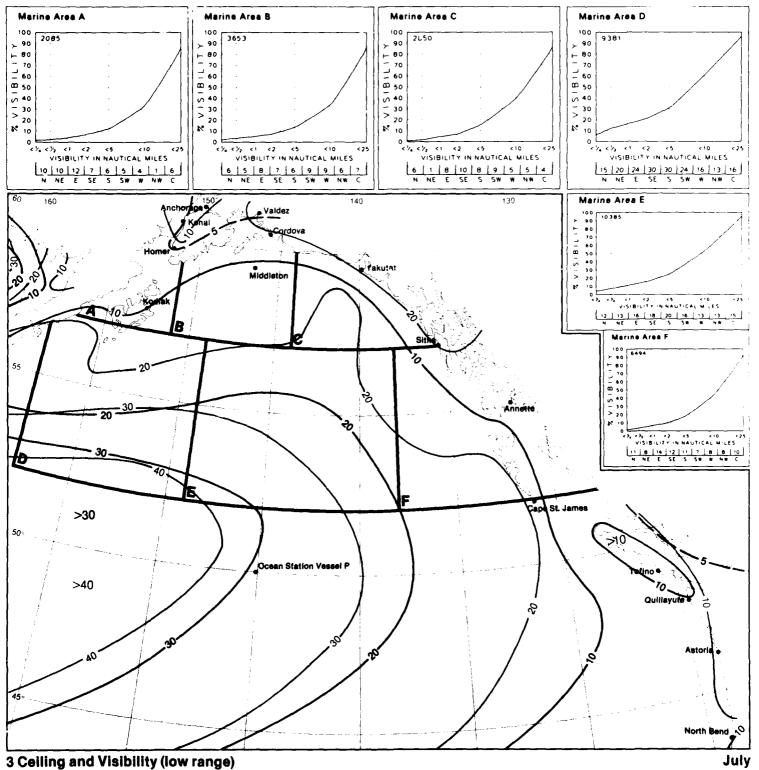


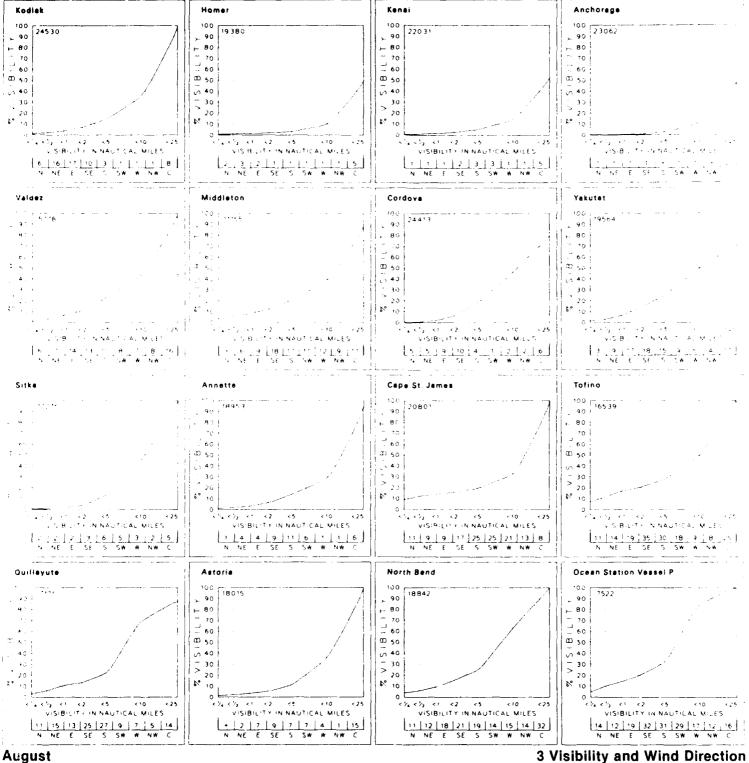
June



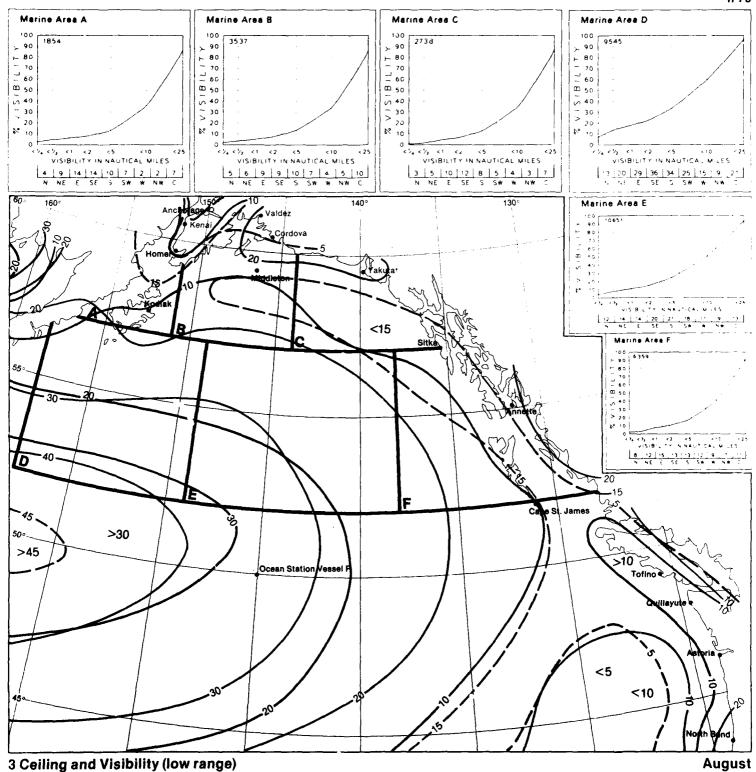
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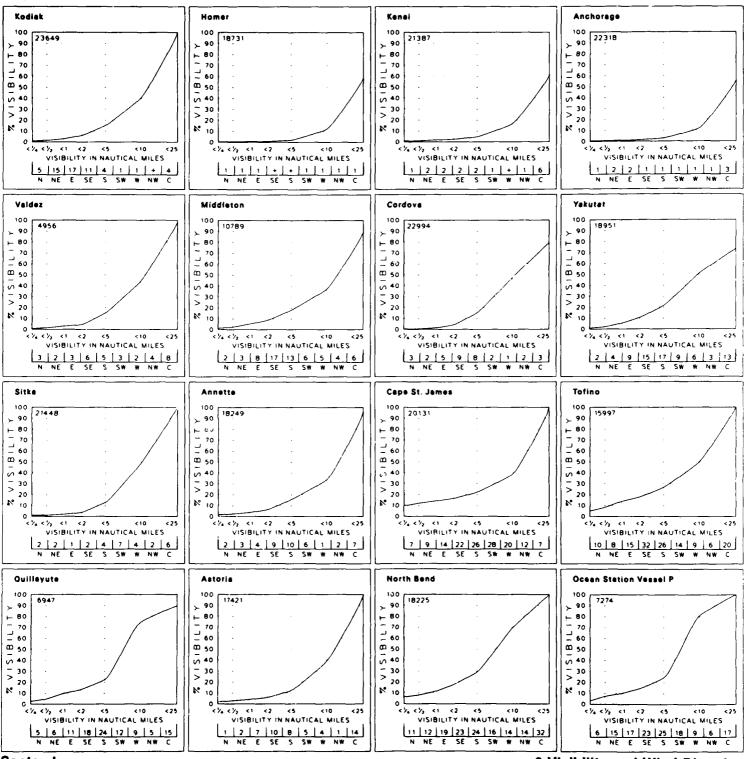






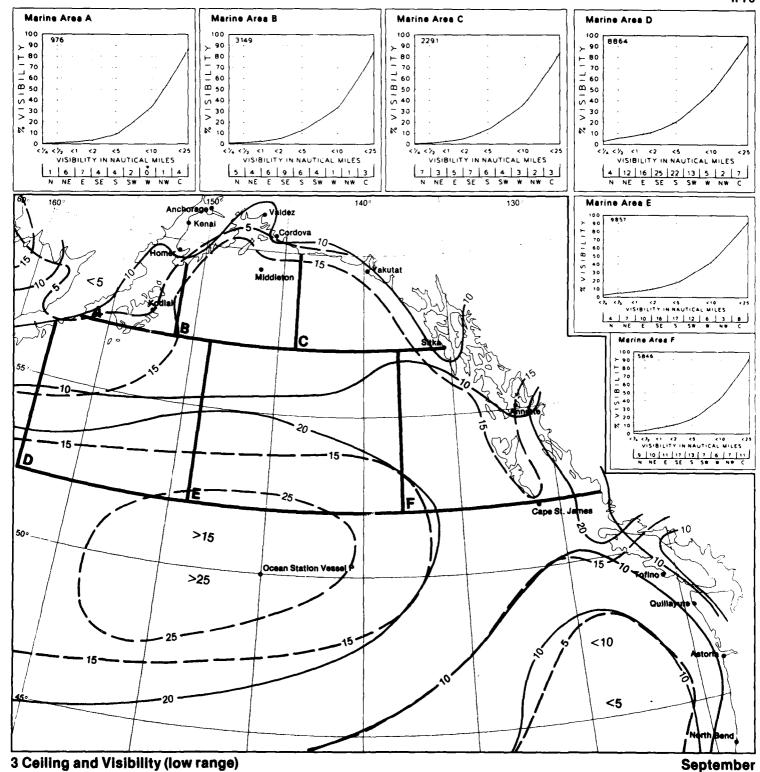
3 Visibility and Wind Direction

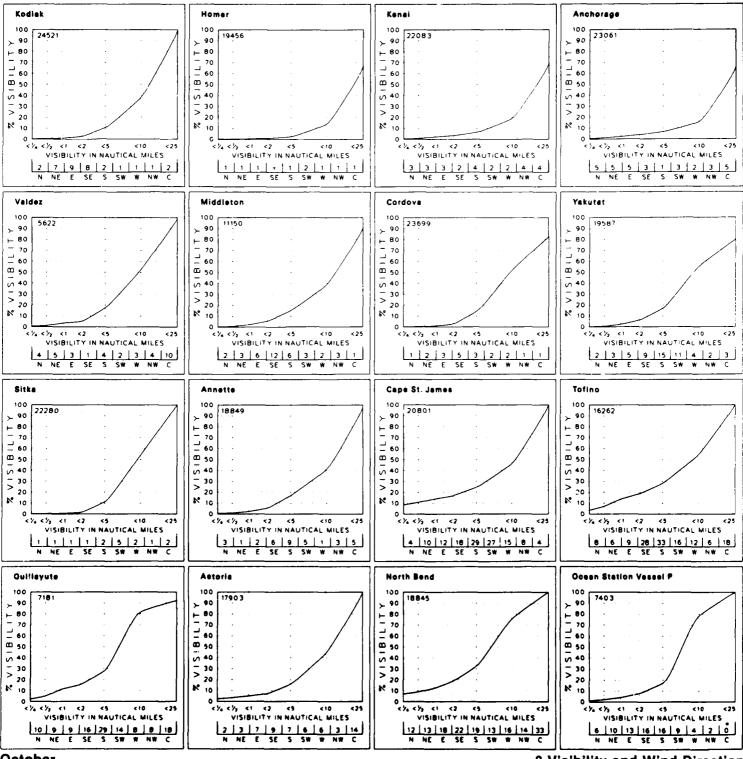




September

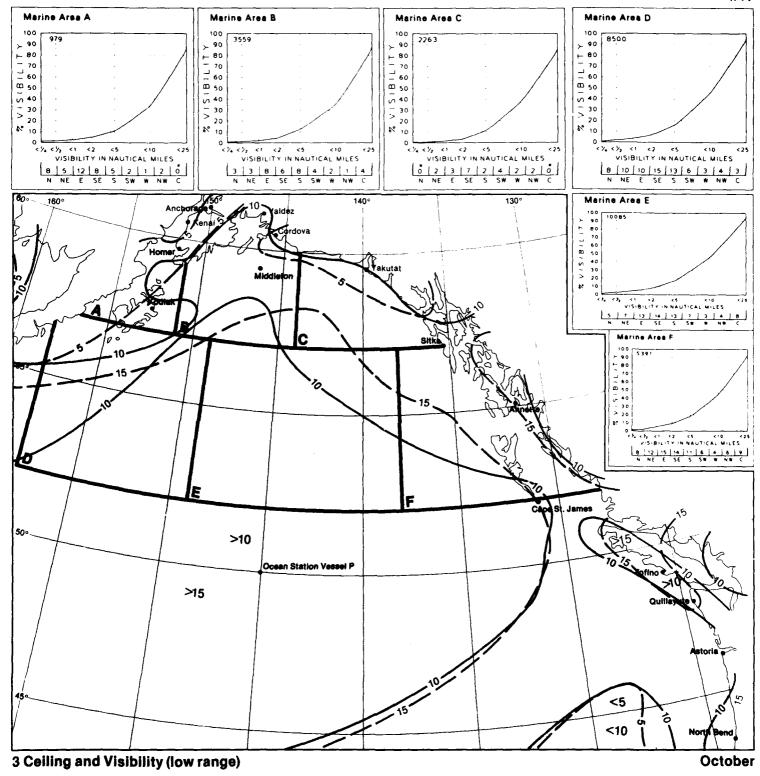
3 Visibility and Wind Direction



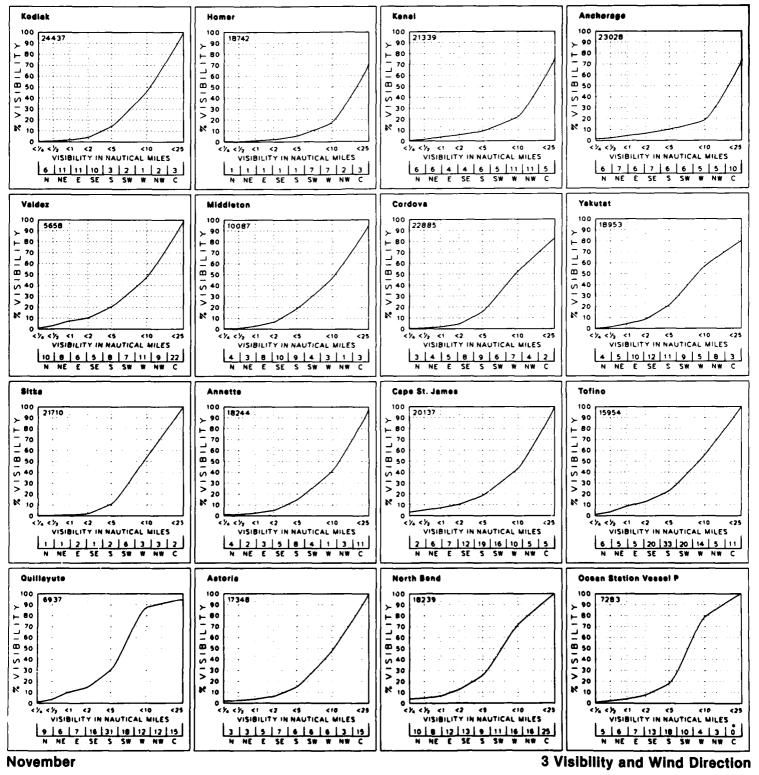


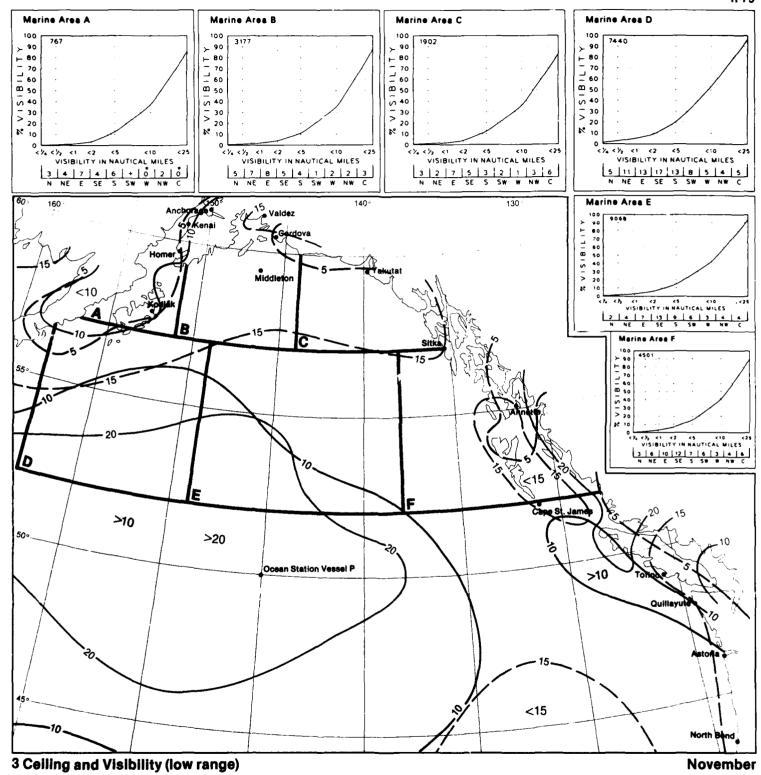
October

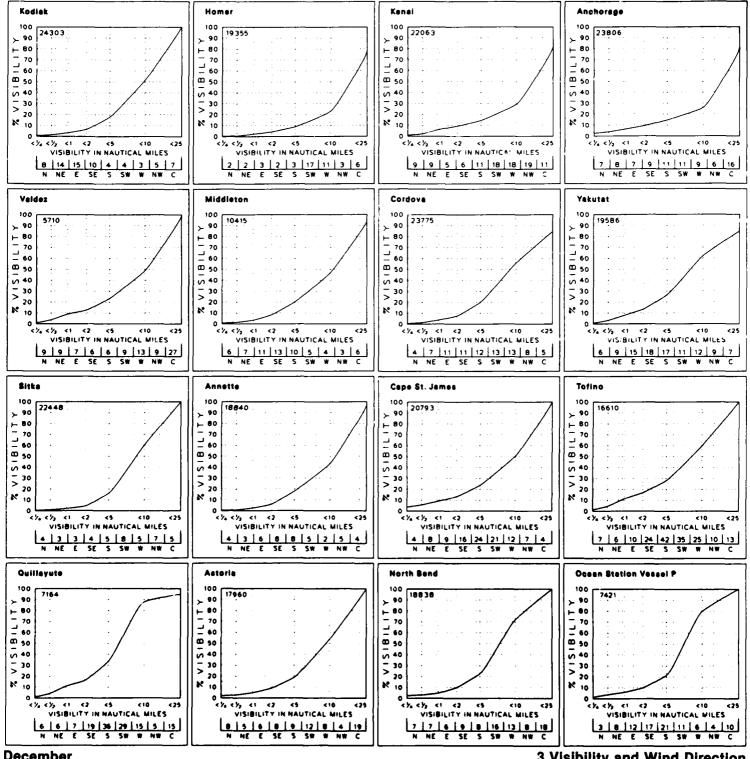
3 Visibility and Wind Direction



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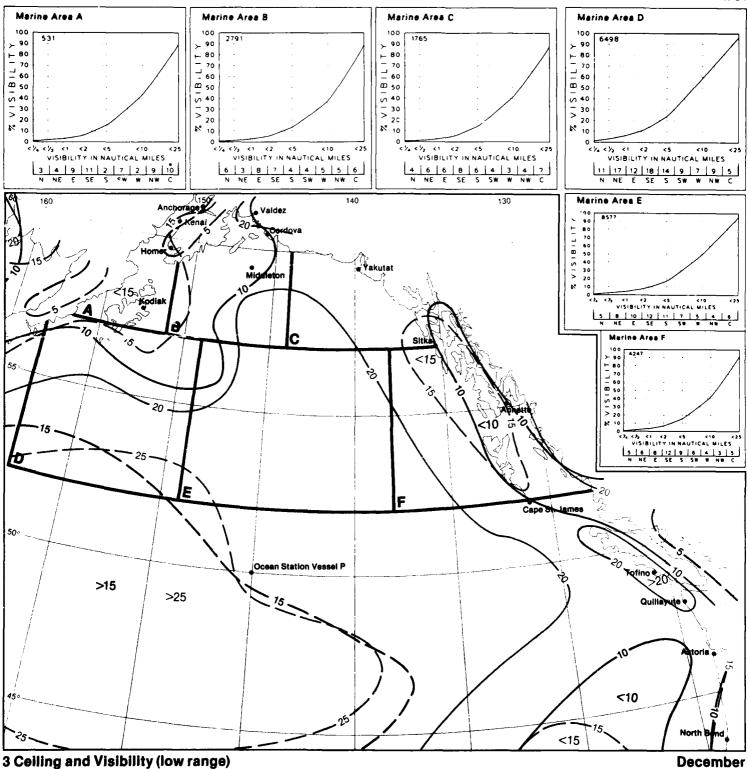






December

3 Visibility and Wind Direction



## Map 4. Ceiling/visibility (mid range)

BLACK LINE - Percent frequency of low cloud ceiling (LCC) <1000 feet and/or visibility <5 nautical miles.

BLUE LINE - Percent frequency of LCC <8000 feet and/or visibility <10 nautical miles.

Albers Equal-Area Conic Projection

### Graphs: Low cloud ceiling/visibility

low cloud cei (nautical miles).	1659	)	(NM)	YTI.	SiBiL	į V1	LOW
Number of ob	≥10	5- <10	2~ <5	1-<2	1/2- <1	<1/2	CLOUD CEILING (10 <sup>2</sup> FT)
Low cloud cei	11	7	2	+	0	+	NC
Obscurations	1	1	+	+	0	0	50<80
	3	2	1	+	+	+	35<50
"NC" (no ceili N <sub>h</sub> <5/8.	11	8	3	2	1	1	20<35
TIN TOP OF	8	8	4	3	3	1	_10<20
(8% of a	1]	1	2	1	+	+	6<10
but <20	+	+	11_	+	+	+	3<6
but <10	+	0	0	+	0	0	1.5<3
+ indicates <.	++	_ 2	1	2	2	5	0<1.5

Percent frequency of simultaneous occurrence of specified iling (hundreds of feet) and visibility

bservations.

iling heights are estimated from the height of n) when low cloud amount (N<sub>h</sub>) is ≥5/8.

are included under ceiling "0<1.5".

ing) includes bases of clouds ≥8000 feet or

all observations reported ceiling ≥1000 feet 000 feet simultaneously with visibility ≧5 nautical miles).

.5% but >0.



Cloud classification is based upon the cloud appearance and, when possible, the formation process. In estimating the height of the lowest cloud base (h), the observer first determines the type of cloud; and, based on the normal height range for that cloud type, determines the height. Heights are generally higher in the tropics and lower at high latitudes. Similarly, clouds will generally be higher in summer and lower in winter. The appearance of the cloud, such as motion visible in the cloud base and the size of the cloud elements, gives some indication as to how much it is higher or lower than the average. After the observer estimates the height of the base of the lowest cloud in sight, he selects and records the appropriate code (see height table and LCC column in graph). Refer to the texts in Sets 3 and 6 for additional information on clouds.

#### HEIGHT (h) ABOVE THE SEA OF THE BASE OF THE LOWEST CLOUD SEEN (WMO Code, 1982)

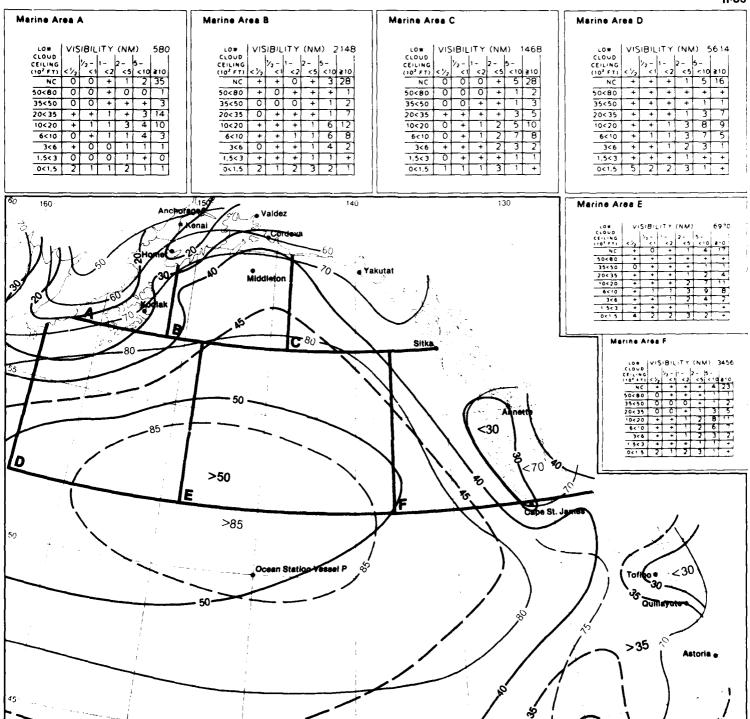
If sky is clear or has only Cirrus-type clouds, code h as 9 Code Height in feet Height in meters figs. 0 0 to 49 50 to 99 100 or less 200 or 300 1 2 3 4 5 100 to 199 400 to 600 700 to 900 200 to 299 300 to 599 1000 to 1900 600 to 999 1000 to 1499 2000 to 3200 3300 to 4900 6 7 1500 to 1999 5000 to 6500 6600 to 8200 2000 to 2499 8 9 2500 or more, or no clouds 8300 or more, or no clouds Sky obscured by fog or snow

4 Legend

11-84			
Kodiek	Homer	Kensi	Anchorage
LOW VISIBILITY (NM) 17252 CLOUD CEILING	LOW VISIBILITY (NM) 995  CLOUD CEILING NC 0 0 0 + 1 35  50<80 0 0 0 + 1 6  35<50 0 0 0 + 1 3 16  10<20 + 1 1 2 5 7  6<10 0 0 + 1 1 1 1  3<6 0 0 + 1 1 1 1  1.5<3 0 0 0 0 0 0  0<1.5 2 2 3 2 1 0	LOW VISIBILITY (NM) 215  CEULING V2 1- 2 - 5 - 10 210  NC + 1 1 1 7 40  50<80 0 0 0 0 1 1 1  35<50 0 0 0 0 2 1  20<35 0 0 1 3 4 2  10<20 0 + 1 1 3 4  6<10 0 0 0 0 0 0 0  3<6 0 0 0 0 0 0 0  1,5<3 0 0 0 0 0 0  0<1.5 10 7 4 4 + 0	COW CLOUD CEILING 1/2-1-2-5- CEILING 1/2-1-2-5- CEILING 1/2-1-2-5- NC 3 1 + 1 3 50  50<80 + + 0 + + 9  35<50 + + + + + + 5  20<35 + 0 + + 1 2 3  6<10 + + + 1 1 2  1.5<3 + + + + + + + 1  0<1.5 3 1 1 1 + +
Veldez	Middleton	Cordova	Yekutet
CLOWD CEILING VISIBILITY (NM) 1967  CLOUD CEILING V2 1- 2- 5- 10 210  NC 0 + + 4 9 28  50<80 0 0 0 + 4 7  35<50 0 0 0 + 2 1  20<35 0 + 0 1 3 1  10<20 0 + 1 5 6 +  6<10 + + 2 2 +  3<6 0 + 1 5 3 +  1.5<3 + + 2 1 +  0<1.5 2 5 2 2 + 0	LOM	LOW CLOUD CEILING (10° FT) (2° C) (2° C) (10° ED) (10° FT) (10° FT	CON   VISIBILITY (NM) 15346   CELUNG   1/2-11-2-5-1   1/2-15-2-5
Sitke	Annette	Cape St. James	Tofino
LOW CLOUD CEILING (10° FT) 2/2 1- 2- 5- 10 210 (10° FT) 2/2 1- 2- 2- 2- 2- 2- 2- 2- 2- 2- 2- 2- 2- 2-	COW CLOUD CEILING (19 15 0 7 4 CLOUD CEILING (19 17 1 2 - 15 - 10 2 10 10 10 10 10 10 10 10 10 10 10 10 10	Cow   VISIBILITY (NM) 17248   CLOUD   CELLING   COULD   CELLING   COULD   CELLING   COULD	VISIBLETY (NM   14,714   CLOVO   CELLING   CO   CELLING   CO   CO   CO   CO   CO   CO   CO   C
Quilleyute	Asserts		
<b>}</b>	Astoria	North Bend	Ocean Station Vessel P
LOW CLOUD CEILING (10° FT) $<2$ $<2$ $<5$ $<10$ $\ge$ $≥$ $<1$ $<2$ $<5$ $<10$ $\ge$ $≥$ $≥$ $<10$ $\ge$ $≥$ $≥$ $≥$ $≥$ $≥$ $≥$ $≥$ $≥$ $≥$ $≥$	ASTORIS    ON   VISIBILITY (NM) 13443	North Bend  No Data Available	CLOUND CERLING (10° FT) < 1/2

North Band

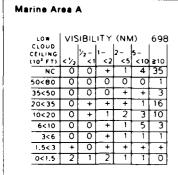
January



4 Ceiling and Visibility (mid range)

#### Homer Kenai Anchorage LOW VISIBILITY (NM) 12161 LOW VISIBILITY (NM) 548 VISIBILITY (NM) 16024 LO# $\sqrt{\frac{1}{2} - \frac{1}{1}} = \frac{2}{2} - \frac{5}{5} = \frac{10}{210}$ CLOUD /2 - 1 - 2 - 5 -2 <1 <2 <5 <1 CEILING (10° FT) <10 310 + + + 1 10 36 1 2 54 + NC No Data Available + 0 + + 8 50<80 + 0 + 0 + + + 35<50 0 0 0 0 + 8 35<50 +1 4 20<35 1 6 0 0 + 2 3 17 20<35 + + + 5 20<35 1 2 1 4 7 10<20 0 0 1 3 3 6 +1 + + 3 10<20 10<20 + 1 3 + 1 2 6<10 0 6<10 0 + + 3<6 0 0 0 1 2 11 11 3<6 + 3<6 + 0 0 0 0 0 0 3 2 2 1 0 0 0 + + 0 + 1.5<3 1,5<3 1.5<3 0<1.5 2 0<1.5 0<1.5 Veidez Yakutat Middleton Cordova LOW VISIBILITY (NM) 1324 LO# VISIBILITY (NM) 12337 LOW VISIBILITY (NM) 13955 VISIBILITY (NM) 2052 CF000 /<sub>3</sub> - 1 - 2 - 5 - /<sub>3</sub> <1 <2 <5 <10 ≥10 NC + + + 2 9 31 50<80 0 0 0 0 4 8 2 9 31 + + + NC NC NC 50<80 0 50<80 50<B0 35<50 0 0 0 + 2 20<35 0 0 + 1 2 0 0 0 35<50 0 5 0 +1 35<50 35<50 + + 2 5 6 5 20<35 4 20<35 +1 6 20<35 0 + + 2 11 10 4 10<20 + + 1 5 6 10<20 10<20 6 10<20 e<10 0 + + 2 1 + 3c6 + + 1 4 2 0 1.5c3 0 + + 1 1 + + 2 5 8 0 1 2 2 1 0 0 0 0 0 2 1 1 1 + 1 4 6<10 + 4 6<10 + + 1 1 2 2 + + + 3<6 3<6 3<6 0 1.5<3 0 + + 0<1.5 3 4 2 + 0 0 1.5<3 1.5<3 4 5 3 2 3 2 0<1.5 0<1.5 0<1.5 Sitke Tofino Cape St. James Annette LOW J VISIBILITY (NM) 14106 LOW VISIBILITY (NM) 12872 LOW VISIBILITY (NM) 224 LOW VISIBILITY (NM) 15942 CLOUD CEILING (10° FT) < 1/2 $\frac{1}{2} - \frac{1}{1} - \frac{2}{2} - \frac{5}{5} - \frac{1}{10} \ge 10$ $\frac{1}{2} - \frac{1}{1} - \frac{2}{2} - \frac{5}{5} - \frac{1}{2} = 10$ CLOUD CEILING (10° FT) < 1/2 < 1 < 2 < 5 < 10 ≥ 10 NC 0 0 0 0 3 46 5000 0 0 0 0 1 4 1 9 40 NC 50<80 0 + + + 2 + + + 0 0 0 0 4 8 4 0 + + 0 35<50 35<50 35<50 35<50 20<35 0 0 + 1 12 4 + + + + 4 10 3 4 + + 9 20<35 + 20<35 20<35 10<20 0 1 2 0 4 10 9 3 8 + + 6 10<20 10<20 10<20 6<10 0 0 0 1 1 0 + 1 4 4 + 1 3 2 3 2 2 6<10 6<10 + 6<10 1 3<6 0 0 0 + 0 0 1.5<3 0 0 0 0 0 0 T 2 T + 1 2 1 + + 3<6 + + 3<6 +1 1 + 3<6 + + + + 1.5<3 1.5<3 1.5<3 0<1.5 3 2 2 3 0 0 0<1.5 5 1 2 + 0<1.5 0<1.5 Quillayute Astoria North Bend Ocean Station Vessel P LOW VISIBILITY (NM) 7:36 C1000 VISIBILITY (NM) 4114 VISIBILITY (NM) 12694 C.000 CLOUD CELLING (10° FT) < 1/2 | 1 | 2 | 5 | (10° FT) < 1/2 | < 1 | < 2 | < 5 | < 10° ET | (10° FT) < 1/2 | < 1 | < 7 | < 5 | < 10° ET | = 1 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 | < 7 CEILING CELLING (1) <1 <2 No Data Available NC . NC T + 0 + 0 0 + 2 + 0 0 2 ō 50<80 50<B0 + + 0 4 0 0 0 + + 35<50 35<50 35<50 12 + 2 11 + 20<35 + + 20<35 + 7 + 20<35 + + + + + 2 + 1 4 1 8 13 10<20 19 10<20 10<20 5] 6<10 6<10 + 2 2 4 2 1 3 3 3 1 1 1 0 2 3 1 1 2 3<6 3<6 3<6 1.5<3 1,5<3 1,5<3 0 + + + 0 +1 0 0<1.5 0<1.5 0<1.5

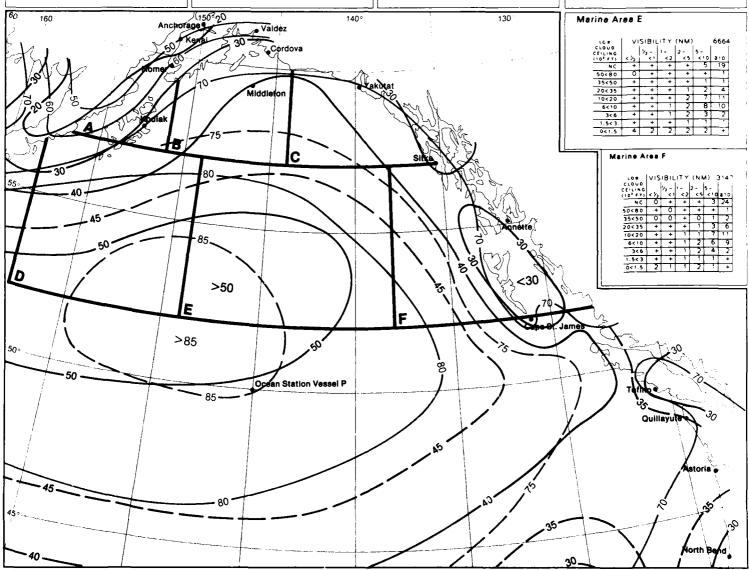
February



Marine Ar	eal	В					
LO₩.	VIS	PIBIL	11 Y	(NV	1) 2	2213	
CLOUD		l.	١.	L :	١_	] [	
CEILING	١.	1/2-	1-	2 –	P~	1 1	
(10° FT)	< 1/2	< 1	<2	<5	<10	≥10	
NC	0	+	0	+	3	27	
50<80	0	0	0	+	+	+	
35<50	+	+	0	+	1	2	
20<35	0	+	+	+	3	8	
10<20	+	+	+	1	5	11	
6<10	0	+	+	2	5	10	
3<6	+	0	+	2	3	2	
1.5<3	+	+	+	1	+	+	
0<1.5	2	1	2	3	2	1	

Marine A	Marine Area C									
	اسد		ı	/h.i.h		204				
LOW CLOUD CEILING	۷13	1/2 -	    1-	(NN  -	5-	284				
(10° FT)	< 1/2	<b>1</b>	<2	<5	<10	≩10				
NC	+	0	+	+	3	30				
50<80	+	0	0	0	+	1				
35<50	+	0	+	+	1	3				
20<35	+	+	+	+	3	6				
10<20	+	+	+	1	5	13				
6<10	+	+	+	2	5	7				
3<6	0	+	+	1	2	2				
1.5<3	+	+	+	t	1	+				
0<1.5	3	1	2	2	1	+				

Aarina Ar		,				
LOW	VIS	iBiL	,IT Y	(NN	1) 5	66 11
CLOUD		1/2-	1 -	2 -	5 -	
(10 <sup>3</sup> FT)	< 1/2	<1	<2	<5	<10	210
NC	+	+	+	1	5	18
50<80	0	+	0	+	+	1
35<50	+	+	+	+	1	2
20<35	+	+	+	1	4	9
10<20	+	1	1	2	7	9
6<10	+	+	1	3	6	5
3<6	+	+	1	2	3	1
1.5<3	+	+	+	+	+	+
0<1.5	5	2	2	2	1	+



4 Ceiling and Visibility (mid range)

February

Kodisk						
LOW	l voc	SIB IL	iTV	/AIA	4) 15	767
CLOND	V 13			L CANA	יונדי ו	107
CEILING	١.	/2 -	1 -	2 ~	5-	l
(10° FT)	< 1/2	<1		<5		
NC	+	+	<b>+</b> _	+	10	40
50<80	0	+	+	+	[ 1]	1
35<50	0	+	+	+	T	7
20<35	+	+	+	1	7	
10<20	+	+	1	3	6	
6<10	+	+	+	2	3	
3<6	+	+	1	2	1	_
1.5<3	+	+	+	T+	+	
0<1.5	2	2	1	1	+	
Valdez						_
Valdez						

LO#	VIS	714				
CLOUD		ļ., ·	١,	ا ا	_	
CEILING (10 <sup>2</sup> FT)	< 1/2	ン <sub>2</sub> - く1	<2	< 5	<10	≥10
NC	0	0	0	+	+	38
50<80	0	0	0	0	0	3
35<50	0	0	0	0	+	-8
20<35	0	0	+	1	2	21
10<20	0	0	+	3	6	7
6<10	0	0	+	1	7	1
3<6	0	0	+	1	1	1
1.5<3	0	0	0	0	0	0
0<1.5	+	1	2	1	0	0

_		Ke
4		
9		
9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9		
5	H	

LOW	VIS	BIL	ITY	(NM	1) 13	150
CLOUD		1/2 -	l	2-	s - 1	
(102 FT)	< 1/2	<sup>'</sup> <1	<2	<5	<10	≥10
NC	+	+	+	+	1	63
50<80	0	0	0	+	+	7
35<50	0	+	+	+	+	6
20<35	+	+	+	+	1	6
10<20	+	+	+	1	2	3
6<10	0	+	+	+	1	1
3<6	+	+	+	+	1	+
1.5<3	+	+	+	+	+	+
0<1.5	+	1	1	1	+	+

LQ#	VIS	BIL	JTY	(NA	4) 2	2409
CLOUD CEILING (10 <sup>2</sup> FT)	< ½	½- <1	1 – < 2	2 ~   <5	5 - <10	<b>≥</b> 10
NC	+	+	+	2	8	36
50<80	0	0	0	+	3	8
35<50	0	Ö	0	+	2	1
20<35	0	0	+	1	2	1
10<20	+	+	+	3	4	+
6<10	0	+	+	2	2	+
3<6	0	+	1	3	2	+
1.5<3	Ó	+	+	+	1	0
0<1.5	4	7	2	1	0	0

LO#	VIS	iBit	ΙTΥ	(NN	1) 1	147
CLOUD		1/2-	\	2	5-	
(10° FT)	< 1/2	· < 1	< 2	<5	<10	≥10
NC	0	0	0	+	10	32
50<80	0	0	0	0	+	1
35<50	0	0	+	+	1	2
20<35	0	0	+	1	4	7
10<20	0	+	1	3	8	5
6<10	+	1	2	5	6	1
3<6	0	1	1	+	+	0
1.5<3	ō	0	0	0	0	0
0<1.5	2	2	2	1	+	+

Middleton

Annette

Astoris

Cordova							
LOW	lvis	iBII	ITY	(NN	4) 13	3526	
CLOUD	` `	r .	i	1		1 1	
CEILING		1/2 -	1 -	2 -	5 - '	1	
(10° FT)	< 1/3	<1	<2	< 5	<10	≥10	
NC	+	+	+	1	1	47	
50<80	0	0	0	+	+	3	
35<50	0	0	+	+	1	5	
20<35	+	+	+	2	7	6	
10<20	+	+	1	5	6	2	
6<10	Ô	+	+	1	1	+	
3<6	0	+	+	+	+	+	
1.5<3	0	0	0	0	0	0	
0<1.5	1	3	2	2	+	0	
-		•		•			

No Data Available

LOW	VIS	BIL	YTI.	(NN	1) 15	82
CLOUD	l	1/2~		b -	5-	}
CEILING (10° FT)	< 1/2	<b>.</b> < t	<2	<5	< 10	≥10
NC	1	+	+	1	4	35
50<80	0	+	0	+	+	3
35<50	0	+	0	+	1	3
20<35	+	+	+	1	4	5
10<20	+	+	1	4	8	4
6<10	+	+	1	4	4	1
3<6	+	1	1	2	2	+
1.5<3	+	+	+	+	+	0
0<1.5	3	4	2	1	+	0

LOW	VIS	BIL	ITY.	(NN	1)	24
CLOUD		シュー	, -	2-	5 -	
(10° FT)	<1/2	<1	<2	<5	<10	210
NC	0	0	0	0	3	40
50<80	Ó	0	0	+	0	3
35<50	0	0	0	+	7	6
20<35	0	+	+	1	12	1
10<20	0	0	0	4	7	0
6<10	0	0	1	+	3	+
3<6	0	Ó	0	1	2	O
1.5<3	0	0	0	+	+	O
0<1.5	2	1	1	2	+	0

LOW CLOUD	VIS	IBIL	iΤΥ	(NN	1) 15	53:
CEILING (10° FT)	< 1/2	り2 - <1	1-	2 - < 5	5- <10	≥10
NC	+	+	+	1	2	37
50<80	0	0	Ö	+	+	3
35<50	0	0	0	+	+	4
20<35	+	Ò	+	+	3	11
10<20	+	+	+	3	9	10
6<10	+	+	1	3	4	2
3<6	+	+	1	2	1	+
1.5<3	+	+	+	+	+	+
0<1.5	ī	1	1	T	+	0

Cape St. James									
LO#	VIS	HBIL	ĮΓΥ	(NN	1) 18	3050	)		
CLOUD		ı	1	1	1		ı		
CEILING		1/2 -	1 -	2	5				
(10° FT)	< 1/2	< 1	<2	< 5	<10	≥10	ļ		
NC	+	+	+	1	8	47	ĺ		
50<80	0	+	0	+	+	+			
35<50	+	0	0	+	+	1			
20<35	+	+	+	+	3	6	}		
10<20	+	+	+	2	8	7			
6<10	+	1	1	2	2	1			
3<6	+	1	1	T	1	+	ĺ		
1.5<3	+	+	+	+	+	+			
0<1.5	4	1	+	+	+	+			
		-							

North Bend

Tofino						
10*	VIS	IBIL	ΙΤΥ	(NN	A) 14	204
CLOUD		l٠.	l.	L	-	
CEILING	١.	1/2 ~	1 -	2 -	5 -	
(10° FT)	< 1/2	<1	<2	< 5	< 10	≥10
NC	+	+	+	1	8	51
50<80	0	0	+	+	+	1
35<50	0	+	0	+	1	2
20<35	+	+	+	1	7	5
10<20	+	1	1	3	5	1
6<10	+	2	1	2	1	+
3<6	1	1	1	+	+	0
1.5<3	+	+	0	+	0	0
0<1.5	2	1	+	+	0	ō

Quillayut	•					
LO#	(VIS	SIB'L	.ITY	(NN	1) 4	434
CLOUD	1	l.	l.	١	ا	1
CEILING	1	1/2 -	l'	۲	P	٠.,
(10° FT)	<del>-</del> -	<1	<2	<5	< 10	≥10
_ NC	+	+	+	_ 1	20	15
50<80	0	0	0	0	1	+
35<50	0	+	0	+	3	+
20<35	+	+	+	1	11	2
10<20	+	1	1	7	15	Ī
6<10	+	2	2	3	3	+
3<6	+	2	1	1	1	0
1.5<3	+	+	+	+	+	0
0<1.5	Ti	1	+	+	0	Ó

LO#	( VIS	iBil	ΙTΥ	(NN	1) 13	8878
CLOUD	l	l,	١. ا	l,	ا ء	
CEILING (10° FT)	<1/2	/2 - <1	<2	<5	<10	≥10
NC	+	+	+	1	5	37
50<80	+	+	Ó	+	+	1
35<50	+	+	O	+	1	4
20<35	0	+	+	+	5	13
10<20	0	+	+	1	9	7
6<10	+	+	+	3	4	1
3<6	+	+	1	2	1	+
1.5<3	+	+	+	+	+	0
0<1.5	1	+	+	+	0	0

No Data Available	

Ocean Station Vessei P									
LOW	IVIS	BIL	ITY	(NA	1) 7	7757			
CLOUD	Į.	1		1	i	1			
CEILING	1	1/2-	1 -	2 -	5 -				
(10° FT)	< 1/2	< 1	< 2	< 5	< 10	≥10			
NC	1	+	+	1	12	9			
50<80	+	+	+	+	+	+			
35<50	+	+	+	+	1	+			
20<35	+	+	+	1	14	6			
10<20	+	+	1	4	19	5			
6<10	+	1	1	3	3	1			
3<6	+	2	2	3	2	+			
1.5<3	+	+	+	+	+	0			
0<1.5	3	+	0	Ó	+	Ö			

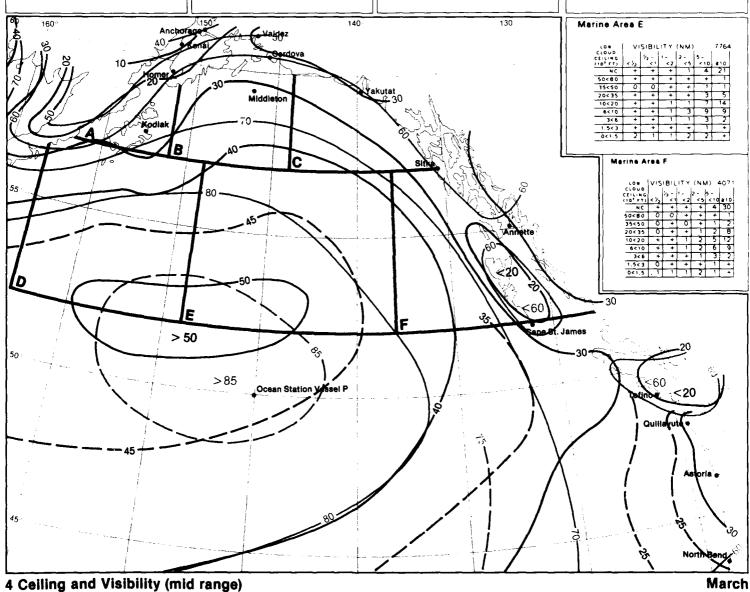
Sitka

Marine Area A										
LOW	VIS	ireil	.ITY	(NA	1)	952				
CLOUD		١.	١.	<u>.</u>	ا يا	'				
CEILING	١.	1/2 -	۲~	μ-	P-					
(10 <sup>3</sup> FT)	< 1/2	<u> </u>	<2	<5	<10					
NC	+	0	0	+	6	36				
50<80	0	0	0	0	+	1				
35<50	0	0	+	+	+	2				
20<35	0	0	+	Ī	3	7				
10<20	0	+	+	1	5	11				
6<10	+	+	1	1	4	6				
3<6	0	+	+	1	2	3				
1.5<3	0	+	0	+	1	1				
0<1.5	1	1	1	1	1	+				

Marine Area B										
LOW CLOUD CEILING		iBiL V2-	.ITY  1-	(NN 2-	5-	24 14				
(10° FT)	<1/2	<1	<2	< 5	<10	<b>≩</b> 10				
NC	+	0	0	+	2	33				
50<80	0	0	0	+	+	1				
35<50	0	0	+	+	1	Ź				
20<35	+	0	+	+	2	8				
10<20	+	Ŧ	+	1	5	12				
6<10	0	+	+	-	6	9				
3<6	0	+	+	1	3	2				
1.5<3	+	+	+	+	1	+				
0<1.5	1	+	1	2	1	+				

Marine Area C										
ro.	lvis	SIRII	JTY	(NA	۱) ۱	1542				
CLOUD CEILING (102 FT)	< 1/2	1/2 - <1	1- <2	2 -	5-	≥10				
NC.	Č	0	+	+	3	32				
50<80	0	0	0	+	+	1				
35<50	0	0	0	+	1	3				
20<35	+	0	+	+	2	11				
10<20	+	+	+	1	6	12				
6<10	+	+	1	1	4	7				
3<6	+	+	+	1	2	2				
1.5<3	0	+	0	+	1	+				
0<1.5	2	1	1	2	1	+				

LO#	VIS	BIL	JTY.	(NN	1) (	47
CLOUD		1/2-	1 -	2-	5-	
(10° FT)	< 1/2	< 1	< 2	< 5	<10	₹10
NC	+	+	+	1	5	19
50<80	+	0	0	+	+	1
35<50	0	0	+	+	1	2
20<35	+	+	+	1	3	8
10<20	+	+	1	2	8	9
6<10	+	1	1	3	7	5
3<6	+	+	•	2	3	1
1.5<3	+	+	+	+	+	+
0<1.5	3	2	2	2	1	+



### Kodiek

L0+	VIS	BIL	ΙΤΥ	(NA	1) 16	949
CLOUD CEILING (10° FT)	< 1/2	ر درا دا	1- <2	2 - <5	5- <10	≩10
NC	0	+	+	+	5	43
50<80	0	0	0	+	+	1
35<50	+	0	+	1	1	2
20<35	0	+	+	1	6	10
10<20	+	+	+	3	7	4
6<10	+	+	1	3	3	1
3<6	+	+	+	1	1	+
1.5<3	0	+	+	+	+	
0<1.5	1	1	1	1	+	0

#### Homer

LOW	VIS	BIL	IT Y	(NN	1)	684	Ļ
CLOUD CEILING (10 <sup>2</sup> FT)	< 1/2	/ <sub>2</sub> - <1	1-	2- <5	5- <10	<b>≩</b> 10	
NC	0	O	0	+	+	42	ı
50<80	0	0	0	0	0	5	
35<50	0	0	0	0	0	10	
20<35	0	Õ	+	1	2	19	i
10<20	0	0	0	1	_ 3	8	
6<10	0	0	0	1	1	1	
3<6	0	0	0	1	1	1	ŀ
1.5<3	0	0	0	0	0	0	
0<1.5	+	1	1	1	0	0	

#### Kenai

No Data Available

# Anchorage

LOW	VIS	BIL	ITY	(NN	0 13	3191
CLOUD CEILING (10 <sup>2</sup> FT)	< 1/2	/ <sub>2</sub> - <1	1-	2- <5	5-   <10	<b>≩</b> 10
NC	+	+	+	+	2	62
50<80	+	0	+	+	+	8
35<50	+	0	0	+	+	6
20<35	+	+	+	+	1	6
10<20	+	+	+	1	2	3
6<10	0	+	+	1		1
3<6	+	+	+	1	1	+
1.5<3	0	+	+	+	+	+
0<1.5	+	_ 1	1	+	+	+

#### Veldez

LOW	VIS	IBIL	ITY	(NN	1) 2	447
CLOUD CEILING	< 1/2	/ <sub>2</sub> - <1	1-	2- <5	5-	<b>≩</b> 10
NC.	6	+	+	7	9	43
50<80	0	0	0	+	2	7
35<50	0	+	0	+	2	1
20<35	0	Õ	0	+	2	
10<20	+	+	+	4	5	2
6<10	0	+	_+	2	3	+
3<6	0	+	1	3	2	+
1.5<3	+	+	+	1	1	0
0<1.5		3	1	+	+	0

#### Middleton

LO#	VIS	BIL	ITY	(NA	1) 1	441
CLOUD	١.	1/2-	1-	2 –	5-	
(10° FT)	< 1/2	<1	<2	< 5	_	≥10
NC	+	+	0	+	6	35
50<80	0	0	0	0	+	2
35<50	0	Ō	0	0	1	3
20<35	0	+	0	+	3	6
10<20	+	+	1	2	7	7
6<10	+	+	2	6	7	3
3<6	+	+	1	1	1	+
1.5<3	0	0	0	+	0	0
0<1.5	2	2	1	1	+	0

### Cordova

LO#	VIS	IBIL	ıΤΥ	(NN	1) 13	3029
CLOUD		را	١,	<u>ا</u> ا	ے	
CEILING	<1/2	/2-	,-	<5	<10	≥10
(10° FT)	2</td <td>&lt;1</td> <td>&lt;2</td> <td>٠,</td> <td>&lt; 10</td> <td>₹10</td>	<1	<2	٠,	< 10	₹10
NC	+	+	+	1	2	44
50<80	0	0	+	+	+	2
35<50	0	0	+	+	1	5
20<35	+	_+	+	1	7	10
10<20	+	+	+	-5	8	3
6<10	+	+	+	1	2	+
3<6	+	+	+	+	+	+
1.5<3	0	Ō	0	0	+	0
0<1.5	1	2	1	1	+	+

#### Yakutat

LOW	VIS	BIL	ITY	(NN	1) 15	353
CLOUD CEILING (10° FT)	< 1/2	½- <1	1-	2 - <5	5- <10	<u>≥</u> 10
NC	+	+	+	1	4	35
50<80	+	+	0	+	+	3
35<50	+	+	+	+	1	3
20<35	+	+	+	+	4	6
10<20	+	+	1	3	9	6
6<10	+	+	1	4	5	1
3<6	+	+	1	2	2	1
1.5<3	+	+	+	+	+	+
0<1.5	2	2	1	+	+	0

#### Sitks

LOW	VIS	iBiL	IΤΥ	(NN	()	5 1
CEILING		1/2-	1-	_	5-	
(10° FT)	< 1/2	_<1	<2	<5		≩10
NC	0	0	0	2	4	0
50 <b0< td=""><td>0</td><td>Ö</td><td>0</td><td>0</td><td>0</td><td>0</td></b0<>	0	Ö	0	0	0	0
35<50	0	Ô	0	Ó	8	2
20<35	0	2	0	14	29	0
10<20	0	0	0	4	12	0
6<10	Ô	Ō	2	0	10	0
3<6	0	0	0	0	0	O
1.5<3	O	0	Ò	0	0	0
0<1.5	2	8	2	0	0	0

#### Annette

LOW	VIS	BIL	ΙΤΥ	(NN	() 15	073	3
CLOUD		γ <sub>2</sub> –	1 -	2 –	5 -		
(10° FT)	< 1/2	< 1	<2	< 5	<10	≥10	
NC	+	+	+	1	2	41	ì
50<80	0	Ô	0	+	+	2	l
35<50	0	0	0	+	+	3	
20<35	0	0	0	+	3	11	ĺ
10<20	+	+	+	3	10	12	l
6<10	O	+	+	2	4	2	
3<6	+	+	+	1	1	+	
1.5<3	+	0	+	+	+	+	
0<1.5	+	+	+	+	+	+	١

#### Cape St. James

LOW	VISIBILITY (NM) 17261							
CEILING (10° FT)	< 1/2	½- <1	1-	2 – <5	5 - <10	≥10		
NC	+	+	+	1	9	53		
50<80	0	+	0	+	+	+		
35<50	+	+	0	0	+	+		
20<35	+	0	0	+	2	5		
10<20	+	+	+	2	7	7		
6<10	+	+	+	2	2	+		
3<6	+	1	1	1	1	+		
1,5<3	+	+	+	+	+	+		
0<1.5	3	_1	1	+	+	+		

### Tofino

LO#	VIS	BIL	ITY	(NN	1) 13	3381
CLOUD CEILING (10 <sup>2</sup> FT)	< 1/2	½- <1	1-	2- <5	5 - <10	≩10
NC	+	+	+	1	8	54
50 <b0< td=""><td>0</td><td>+</td><td>0</td><td>0</td><td>+</td><td>1</td></b0<>	0	+	0	0	+	1
35<50	0	0	+	+	1	2
20<35	0	+	+	1	6	6
10<20	+	+	1	2	5	2
6<10	+	1	1	2	1	+
3<6	1	1	1	+	+	+
1.5<3	+	+	+	+	0	0
0<1.5	1	+	+	+	+	0

### Quilleyute

LOW	VIS	BIL	ΙΤΥ	(NN	1) 4	264
CLOUD CEILING (10° FT)	< 1/2	/ <sub>2</sub> - <1	1-	2- <5	5-	≥10
NC	+	+	+	1	21	18
50<80	0	0	Ō	0	1	+
35<50	0	O	0	+	2	+
20<35	+	+	+	1	14	3
10<20	+	1	1	5	16	2
6<10	+	1	1	3	3	+
3<6	1	1	+	1	1	Ó
1.5<3	+	+	+	+	+	0
0<1.5	1	+	+	+	+	Ó

### Astoria

LOW	VIS	BIL	ΙΤΥ	(NN	1) 13	360
CLOUD CEILING (10° FT)	< 1/2	½- <1	1-	2- <5	5-	≥10
NC NC	1	+	+	+	5	38
50<80	0	0	0	+	+	1
35<50	0	0	0	0	1	3
20<35	0	+	+	+	4	17
10<20	0	+	+	1	7	8
6<10	0	+	1	2	4	1
3<6	+	+	1	-1	1	+
1.5<3	+	+	+	+	+	0
0<1.5	- 1	+	+	+	+	+

### North Bend

No Data Available

### Ocean Station Vessel P

LOW	VIS	BIL	ITY	(NN	1) 7	579
CLOUD CEILING (10° FT)	< 1/2	/ <sub>2</sub> - <1	1-<2	2 - <5	5- <10	<b>≥</b> 10
NC	+	+	+	1	19	10
50<80	+	0	+	+	+	+
35<50	+	+	0	+	7	1
20<35	+	+	+	+	14	6
10<20	+	+	1	3	20	5
6<10	+	+	1	3	3	+
3<6	+	1	1	2	1	+
1.5<3	+	+	+	+	+	0
0<1.5	3	+	+	+	+	0

### April

April

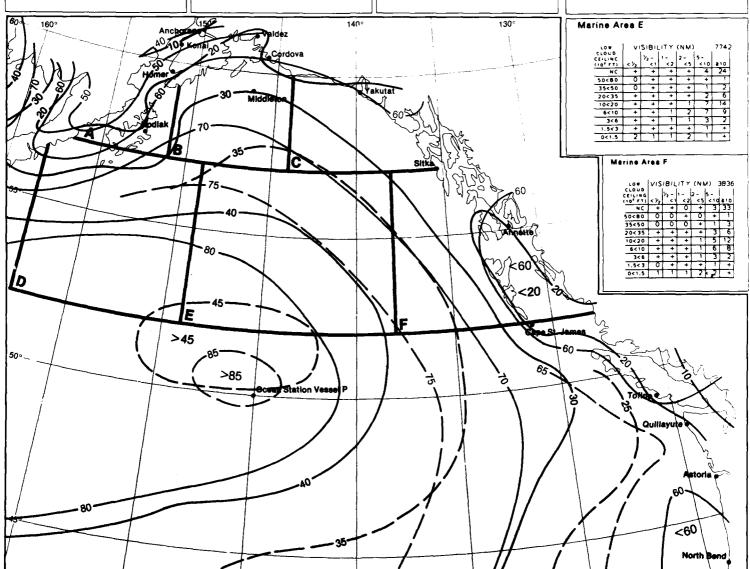
Marine Ar		Α.					
LO#	VIS	iBIL	ITY	(NA	<b>1)</b>	995	<b>5</b>
CEILING	<b>,</b>	1/2 -	1 -	2	5-		
(10 <sup>2</sup> FT)	< 1/2	<1	< 2	<5	<10	≩10	ĺ
'±C	+	0	+	+	4	40	
50<80	0	0	0	0	+	1	1
35<50	0	0	+	+	1	3	
20<35	0	+	+	1	4	6	
10<20	0	+	+	1	6	10	
6<10	+	0	+	1	3	5	ı
3<6	0	0	+	1	2	2	
1.5<3	0	+	+	1	1	1	
0<1.5	1	2	1	2	2	+	

4 Ceiling and Visibility (mid range)

LO#	VIS	BIL	ITY	(NN	1) 2	256
CLOUD		١	ĺ	l.	l	i
CEILING	1	1/2-	J1 -	J2	5-	!
(10° FT)	< 1/2	< 1	<2	<5	<10	≩10
NC	+	0	0	+	2	33
50 <b0< td=""><td>0</td><td>Ô</td><td>+</td><td>0</td><td>+</td><td>П</td></b0<>	0	Ô	+	0	+	П
35<50	0	0	0	+	+	2
20<35	0	0	+	+	2	٤
10<20	0	+	+	1	4	13
6<10	0	+	+	1	5	9
3<6	+	+	+	1	3	2
1.5<3	0	+	+	1	1	1
0<1.5	T	T	$\neg$	2	7	+

LO#	VIS	VISIBILITY (NM)						
CLOUD	1	1/2 ~	1-	2 -	5-	1		
10° FT)	<1/2	<1	<2	<5	<10	≩10		
NC.	0	+	0	1	2	37		
50 <b0< td=""><td>+</td><td>Õ</td><td>0</td><td>0</td><td>+</td><td>1</td></b0<>	+	Õ	0	0	+	1		
35<50	0	Ô	+	+	1	3		
20<35	0	0	+	1	3	8		
10<20	0	+	+	1	5	11		
6<10	+	+	+	+	5	8		
3<6	0	0	+	1	3	2		
1.5<3	0	+	+	+	1	+		
0<1.5	$\neg$	+	1	1	1	+		

LO#	VIS	BIL	ΙΤΥ	(NN	1) 6	644
CLOUD		1/2-	1 -	2 -	5 -	
(10° FT)	< 1/2	<1	<2	<5	<10	≥10
NC	+	+	+	1	5	22
50<80	+	O	+	+	1	1
35<50	0	+	+	+	1	2
20<35	+	+	+	1	3	8
10<20	+	+	1	3	8	10
6<10	+	T+	1	2	6	6
3<6	+	+	1	1	2	1
1.5<3	+	0	+	+	+	+
0<1.5	4	2	2	2	1	+



11-92			
Kodiek	Homer	Kenai	Anchorage
CLOUD CEILING (10°FT) (2°) (2°) (2°) (2°) (2°) (3°) (10°FT) (2°) (2°) (2°) (2°) (3°) (10°FT) (2°) (2°) (2°) (2°) (3°) (3°) (3°) (3°) (3°) (3°) (3°) (3	LOW   VISIBILITY (NM)   584	No Data Available	LOW CLOUD CEILING   1/2 - 1 - 2 - 5 - (10 210
Valdez	Middleton	Cordova	Yekutet
CLOUD CEILING (10°FT) (17° CN C) 1968 (10°FT)	LOW CLOUD CELLING (10° FT) (72° C1 22° C5 C10 210 C10 20° C10 20° C10° C10° C10° C10° C10° C10° C10° C1	LOW CLOUD CEILING (10° FT) (7/2 - 1 - 2 - 5 - 100 ±10 (10° FT) (7/2 - 1 - 2 - 5 - 100 ±10 (10° FT) (7/2 - 1 - 2 - 5 - 100 ±10 (10° FT) (7/2 - 10° FT) (7/2 -	LOW CLOUD CELLING (10° FT) (72° L - 2° 5° L - 2° 10° E10° E10° E10° E10° E10° E10° E10°
Sitke	Annette	Cape St. James	Tofino
No Data Available	LOW VISIBILITY (NM) 14938  CEILING	LOW VISIBILITY (NM) 17803  CEILING 107 FT) <1/2   -1 - 2 - 5 -    NC + + + + 1 B 60  50<80 0 + + + + + + + + + + + + + + + + + +	CLOUD CELLING   1/2 - 1 - 2 - 5 -   1 - 2 -
Quilleyute	Astoria	North Bend	Ocean Station Vessel P
CON VISIBILITY (NM) 4235  CEILING (10° FT) $< y_2 - 1 - 2 - 5 - 6 = 10$ NC 1 + + 1 17 21  50<80 0 0 0 + 1 + 3  55<50 + + 0 + 2 + 1  20<35 + + 1 14 4  10<20 + + 1 3 16 2  6<10 + 1 2 3 4 + 3  3<6 + 1 1 1 1 0  1.5<3 0 + + + + 0  0<1.5 1 + + + 0  0<1.5 1 + + + 0  0	LOW VISIBILITY (NM) 13674  CLOUD CEILING (10 <sup>2</sup> FT) (2/2 <1 <2 <5 <10 ≥10  NC + + + + 3 41  50<80 0 0 + 0 + 1  35<50 0 0 0 0 1 2  20<35 0 + 0 + 3 19  10<20 0 + + 1 7 10  6<10 0 + + 2 4 1  3<6 + + 1 1 1 + +  1.5<3 0 + + + + +  0<1.5 + + + + 0 0	No Data Available	CCOUD CELLING (10° FT) (72° <1 < 2 < 5 < 10 ≥ 10 NC + + + + 1 17 8 50<80 0 0 0 + + + + 125 10<20 + + 1 3 22 4 6<10 + 1 1 2 3 2 + 1 1,5<3 + + + + + 0 0<1.5 4 + + + 10

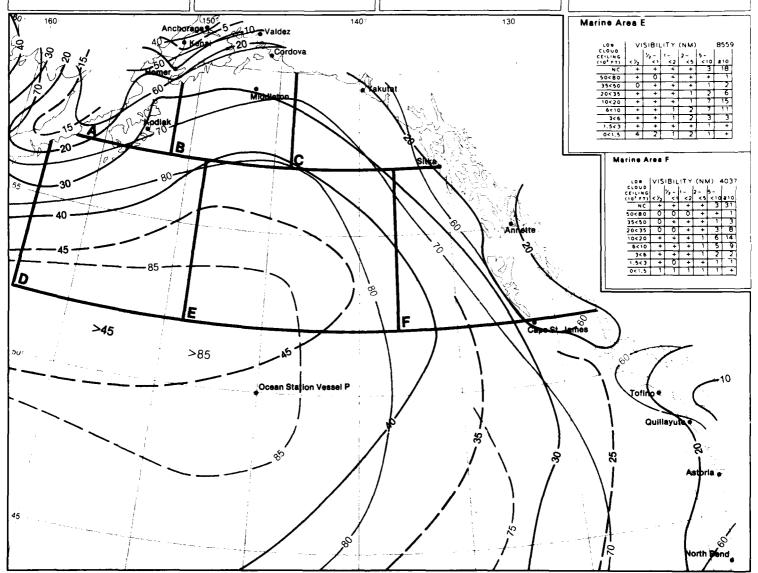
May

Marine Ar	Marine Area A								
LO#	Lvis	a <b>n</b>	ΙΤΥ	/NIA	4) 1	461			
CLOUD	V 1~	h.	i. '		Ĺ	Ι			
CEILING ( (10 <sup>3</sup> FT)	< 1/2	72-	<2	2- <5	<10	≥10			
NC	0	+	+	+	3	38			
50<80	0	0	0	+	+	1			
35<50	0	0	+	+	+	3			
20<35	0	0	+	+	2	7			
10<20	0	+	+	1	6	14			
6<10	+	+	+	2	5	5			
3<6	+	+	+	1	2	1			
1.5<3	+	0	+	+	1	+			
0<1.5	1	+	1	1	1	1			

LOW	1		itv	/ K   K	٠	
CLOUD	ביע ן	BIL	.11 7	(NN	1) 3	306
CEILING	}	<b>シュ</b> ー	1-	2-	5 –	
(10° FT)	< 1/2	<b>1</b>	<2	<5	<10	≥10
NC	+	0	+	+	2	30
50<80	0	0	0	+	1	2
35<50	0	0	+	+	1	2
20<35	0	0	+	+	2	9
10<20	+	+	+	1	4	15
6<10	+	+	+	2	6	9
3<6	+	+	+	1	3	3
1.5<3	+	0	+	+	1	+
0<1.5	1	1	1	2	-	+

LO#	VIS	76				
CEILING	)	1/2-	١,_	l	k_	
(10° FT)	< 1/2	<sup>'2</sup> <1	<b>.</b> <2	_ <5	<10	<b>≥</b> 10
NC	0	0	0	0	3	31
50<80	0	0	0	0	+	1
35<50	0	0	0	Ö	1	4
20<35	0	+	0	1	- 3	9
10<20	+	+	+	1	6	16
6<10	+	+	+	1	5	7
3<6	0	0	+	1	2	3
1.5<3	0	+	+	+	+	+
0<1.5	1	+	1	1	1	+

Marine Ar	Marine Area D									
CEILING		1/2 -	.IT Y  11	2-	5 -	379				
(10° FT)	< 1/2	<1	<2	<5	_	≩10				
NC	+	+	+	+	4	19				
50<80	0	+	+	+	1	1				
35<50	+	+	+	+	1	2				
20<35	+	+	+	1	4	9				
10<20	+	+	1	2	9	11				
6<10	+	+	1	2	7	6				
3<6	+	+	1	1	2	2				
1.5<3	+	+	+	+	+	+				
0<1.5	5	2	2	2	1	+				



4 Ceiling and Visibility (mid range)

May

11-94				
Kodiak	Homer	Kensi	Anchorage	
LOW CLOUD CFILING 1975 1 - 2 - 5 - 1 - 2 - 5 - 1 - 2 - 5 - 1 - 2 - 5 - 1 - 2 - 5 - 1 - 2 - 5 - 1 - 2 - 5 - 1 - 2 - 5 - 1 - 2 - 2 - 5 - 1 - 2 - 2 - 5 - 1 - 2 - 2 - 2 - 2 - 2 - 2 - 2 - 2 - 2	LOW VISIBILITY (NM) 587  CENTING 1/2 - 11 - 2 - 5 - 1	No Data Available	LOW VISIBILITY (NM) 12695 CEILING CEILING (10 <sup>3</sup> FT) (3/3) NC + + + + + 2 64  50<80 0 0 0 0 + + 7  20<35 0 0 + + 1 7  10<20 0 + + + 1 5  6<10 0 0 + + 1 1  3<6 0 0 + + 1 1  1.5<3 + 0 + + + +  0<1.5 + 0 0 + + 0	
Valdez	Middleton	Cordova	Yekutet	
CONTINUE	LOW VISIBILITY (NM) 1406  CEILING (10 <sup>2</sup> FT) (1/2 - 1 - 2 - 5 - 1/2 - 1 - 2 - 5 - 1/2 - 1 - 2 - 5 - 1/2 - 1/	LOW CLOUD CEILING V2 1- 2- 5- (10° FT) < 1/2 - 1- 2- 5- (10° FT) < 1/2 - 1 - 2- 5- (10° FT) < 1/2 - 1 - 2- 5- (10° FT) < 1/2 - 1 - 2- 5- (10° FT) < 1/2 - 1 - 2- 5- (10° FT) < 1/2 - 1 - 2- 5- (10° FT) < 1/2 - 1 - 2- 5- (10° FT) < 1/2 - 1 - 2- 5- (10° FT) < 1/2 - 1 - 2- 5- (10° FT) < 1/2 - 1 - 2- 5- (10° FT) < 1/2 - 1 - 2- 5- (10° FT) < 1/2 - 1 - 2- 5- (10° FT) < 1/2 - 1 - 2- 5- (10° FT) < 1/2 - 1 - 2- 5- (10° FT) < 1/2 - 1 - 2- 5- (10° FT) < 1/2 - 1 - 2- 5- (10° FT) < 1/2 - 1 - 2- 5- (10° FT) < 1/2 - 1 - 2- 5- (10° FT) < 1/2 - 1 - 2- 5- (10° FT) < 1/2 - 1 - 2- 5- (10° FT) < 1/2 - 1 - 2- 5- (10° FT) < 1/2 - 1 - 2- 5- (10° FT) < 1/2 - 1 - 2- 5- (10° FT) < 1/2 - 1 - 2- 5- (10° FT) < 1/2 - 1 - 2- 5- (10° FT) < 1/2 - 1 - 2- 5- (10° FT) < 1/2 - 1 - 2- 5- (10° FT) < 1/2 - 1 - 2- 5- (10° FT) < 1/2 - 1 - 2- 5- (10° FT) < 1/2 - 1 - 2- 5- (10° FT) < 1/2 - 1 - 2- 5- (10° FT) < 1/2 - 1 - 2- 5- (10° FT) < 1/2 - 1 - 2- 5- (10° FT) < 1/2 - 1 - 2- 5- (10° FT) < 1/2 - 1 - 2- 5- (10° FT) < 1/2 - 1 - 2- 5- (10° FT) < 1/2 - 1 - 2- 5- (10° FT) < 1/2 - 1 - 2- 5- (10° FT) < 1/2 - 1 - 2- 5- (10° FT) < 1/2 - 1 - 2- 5- (10° FT) < 1/2 - 1 - 2- 5- (10° FT) < 1/2 - 1 - 2- 5- (10° FT) < 1/2 - 1 - 2- 5- (10° FT) < 1/2 - 1 - 2- 5- (10° FT) < 1/2 - 1 - 2- 5- (10° FT) < 1/2 - 1 - 2- 5- (10° FT) < 1/2 - 1 - 2- 5- (10° FT) < 1/2 - 1 - 2- 5- (10° FT) < 1/2 - 1 - 2- 5- (10° FT) < 1/2 - 1 - 2- 5- (10° FT) < 1/2 - 1 - 2- 5- (10° FT) < 1/2 - 1 - 2- 5- (10° FT) < 1/2 - 1 - 2- 5- (10° FT) < 1/2 - 1 - 2- 5- (10° FT) < 1/2 - 1 - 2- 5- (10° FT) < 1/2 - 1 - 2- 5- (10° FT) < 1/2 - 1 - 2- 5- (10° FT) < 1/2 - 1 - 2- 5- (10° FT) < 1/2 - 1 - 2- 5- (10° FT) < 1/2 - 1 - 2- 5- (10° FT) < 1/2 - 1 - 2- 5- (10° FT) < 1/2 - 1 - 2- 5- (10° FT) < 1/2 - 1 - 2- 5- (10° FT) < 1/2 - 1 - 2- 5- (10° FT) < 1/2 - 1 - 2 - 5- (10° FT) < 1/2 - 1 - 2 - 5- (10° FT) < 1/2 - 1 - 2 - 5 - (10° FT) < 1/2 - 1 - 2 - 5 - (10° FT) < 1/2 - 1 - 2 - 5 - (10° FT) < 1/2 - 1 - 2 - 5 - (10° FT) < 1/2 - 1 - 2 - 5 - (10° FT) < 1/2 - 1 - 2 - 5 - (10° FT) < 1/2 - 1 - 2 - 1 - 2 - 1 - 2 - 1 - 2 - 2 -	LOW VISIBILITY (NM) 15397  CEILING 1971 2/2 1- 2- 5- 10 210  NC 1 + + 1 2 28  50<80 + 0 + + 2 11  35<50 0 0 0 + 3  20<35 0 + + 2 11  10<20 0 + 1 1 8 16  6<10 0 + 1 3 7 5  3<6 + 1 2 2 3 1  1.5<3 + + + + + + + + + + + + + + + + + + +	
Sitke	Annette	Cape St. James	Tofino	
No Data Available	COW VISIBILITY (NM) 15082  CEILING	CLOUD CEILING 1/2-1-2-5-10(10°FT)   NC 1 + + 1 9 56   50 50   50 + 0 + 0 + + + 1 3   10 20 + + + 1 1 1 1   3 6 + + 1 1 1 1 1   1.5 3 + + + + + + + + + + + + + + + + + + +	LOW VISIBILITY (NM) 13171  CELLING (10° FT) (2) <1 <2 <5 <10 ±10  NC + + + 1 8 58  50<80 0 0 0 0 + + 1  35<50 0 0 + + 1 1  20<35 + + + 4 4 5  10<20 + + 1 1 1 1 1 + 4  3<6 + 1 1 1 1 + +  1.5<3 + + + + + 0  0<1.5 3 + + + + 0 0	
Quillayute	Astoria	North Bend	Ocean Station Vessel P	
LOW CLOUD CEILING (10°FT) (2/2 - 1 - 2 - 5 - 10°ET) (10°FT) (2/2 - 1 - 2 - 5 - 10°ET) (10°FT) (2/2 - 1 - 2 - 5 - 10°ET) (10°FT) (2/2 - 1 - 2 - 5 - 10°ET) (10°FT) (2/2 - 1 - 2 - 5 - 10°ET) (10°FT) (1	LOW CLOUD CEILING (10°FT) (7°2 < 1 < 2 < 5 < 10° ≥10	No Data Available	LOW VISIBILITY (NM) 7399  CELLING (10 <sup>7</sup> FT) ( <sup>7</sup> / <sub>2</sub>   <sup>7</sup> -   2-   5-    NC	

June

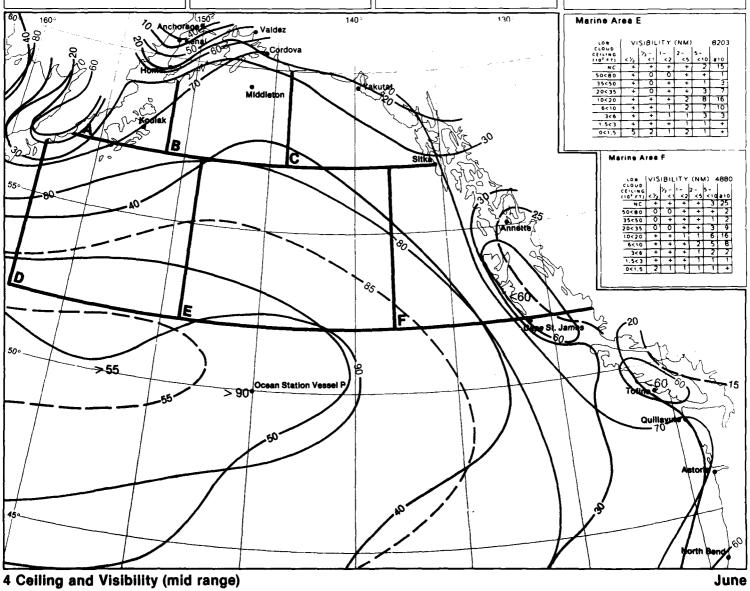
June

Marine Ar	••	4				
LOW	VIS	iBiL	.ITY	(NA	<b>f)</b> 1	86
CLOUD	ļ.	_ أيرا	۱	<b>-</b>	<b>L</b>	1
CEILING (10° FT)	<1/2	<1	<2	<5	<10	≥10
NC	0	+	+	+	2	34
50<80	Ö	0	0	0	+	2
35<50	0	0	0	+	1	6
20<35	0	0	+	0	2	8
10<20	0	+	+	1	6	11
6<10	+	+	+	2	5	6
3<6	0	+	+	+	2	2
1.5<3	0	0	+	+	1	+
0<1.5	2	1	1	2	1	+

Marine Ar	• • •	В				
ro.	l VIS	i Bi L	Y FI.	(NN	4) 3	3093
CLOUD	l	١.	l. :	!_		1 1
CEILING	١.	1/2-	, -יון	J2 ~	5-	)
(10° FT)	< 1/2	< 1	<2	< 5	<10	≩10
NC	+	0	+	+	3	27
50<80	0	0	0	0	+	1
35<50	0	+	0	+	+	2
20<35	0	+	+	1	2	10
10<20	+	+	+	1	5	14
6<10	+	+	+	1	6	10
3<6	0	+	+	1	2	2
1.5<3	+	+	+	+	1	+
0<1.5	2	1	1	1	1	+

LOW	VIS	VISIBILITY (NM)							
CLOUD	l	١,	l.	L	ا				
CEILING		1/2 -	<2	<5 <5	P-,,	≥10			
(10° FT)	< 1/2	<1	_	- 3	(10				
NC	+	0	+	+	3	29			
50<80	0	0	Ö	0	+	2			
35<50	0	0	+	+	+	3			
20<35	0	0	+	+	2	9			
10<20	0	0	+	1	6	17			
6<10	+	0	+	2	5	9			
3<6	0	+	+	1	2	2			
1.5<3	0	+	4	1	1	1			
0<1.5	1	+	+	1	1	+			

Marine Area D										
LQ*	VIS	BIL	ITY.	(NN	(I)	485				
CLOUD		1/2 -	1 –	2-	5-					
(10° ET)	< 1/2	<1	< 2	<5	<10	≩10				
NC	+	+	+	+	3	15				
50<80	+	+	+	+	+	1				
35<50	+	+	0	+	1	3				
20<35	+	+	+	1	4	10				
10<20	+	+	1	2	9	10				
6<10	+	+	1	3	7	6				
3<6	+	+	1	1	2	1				
1.5<3	+	+	+	+	1	+				
0<1.5	8	2	2	2	1	+				



#### 11-96 Kodiek Homer Kensi Anchorage VISIBILITY (NM) 17222 LOW VISIBILITY (NM) 895 VISIBILITY (NM) VISIBILITY (NM) 13122 LO# 229 LOW CLOUD CEILING (10° FT) /<sub>2</sub> - 1 - 2 - 5 - <1 <2 <5 <10 ≥10 CEUING $\frac{1}{2}$ 1- 2- 5- $\frac{1}{2}$ $\frac{1}{2}$ $\frac{1}{2}$ $\frac{1}{2}$ $\frac{2}{2}$ 1/2-1-2-5-<1 <2 <5 <10 ≥10 CEILING < NC + + + + 4 39 50<60 0 + 0 + + 2 50<80 50<80 + + 0 + 1 3 35<50 0 0 0 0 0 6 20<35 0 0 0 0 3 4 10<20 0 0 + 1 2 1 35<50 + 35<50 0 0 0 0 + 17 35<50 0 0 + + + 20<35 20<35 0 0 0 0 2 15 20<35 10<20 + + + 1 4 7 10<20 0 0 0 1 -5 0 0 + + 10<20 + 2 4 6<10 0 0 + 0 2 3<6 0 + 0 0 0 + 히 0 + + 6<10 0 0 6<10 3<6 + + 0 0 + + + 1 3<6 0 + + 3<6 1.5<3 0 0 0 0 0 0<1.5 + + 0 0 0 1.5<3 + + + + 0 0 0 0 0 1,5<3 + 1.5<3 0<1.5 2 1 1 1 + 1 + + + 0 0<1.5 0<1.5 Valdez Middleton Cordova LOW VISIBILITY (NM) 2174 CLOUD CEILING $\begin{vmatrix} 1/2 - 1 - 2 - 5 - 1 \\ 10^2 \text{ FT} \end{vmatrix} < \frac{1}{2} < 1 < 2 < 5 < 10 210$ LOW CLOUD CEILING 1/2- 1- 2- 5- 102 FT) </br> VISIBILITY (NM) 13213 VISIBILITY (NM) 15781 LOW CLOUD CLOUD $\frac{1}{2} - \frac{1}{1 - 2} - \frac{5}{5 - 10} = \frac{1}{20}$ $\frac{1}{10} + \frac{1}{10} + \frac{1}{10} = \frac{2}{50} = \frac{5}{10} = \frac{1}{20}$ $\frac{1}{10} + \frac{1}{10} = \frac{1}{10} = \frac{1}{10}$ $\frac{1}{10} + \frac{1}{10} = \frac{1}{10} = \frac{1}{10}$ CLOUD CEILING (10° FT) NC 1 2 5 38 NC NC 50<80 + + 0 0 1 4 50<80 50<80 0 + 0 + + + 1 35<50 0 + 0 + 4 35<50 0 0 0 + + +[ 35<50 35<50 20<35 0 0 0 + 1 20<35 0 0 + 0 1 9 20<35 1 6 17 20<35 + + 1 5 9 10 0 1 2 3 5 2 + + 1 1 2 + 0 + + + + + + + 1 6 13 + 1 2 4 8 5 + 2 3 4 4 2 0 + + 3 10<20 10<20 0 0 + 4 16 10<20 10<20 6<10 + + + 1 4 1 6<10 + + 1 3 8 6 3<6 + + 1 3 3 1 1.5<3 0 0 0 0 + 0 6<10 6<10 3<6 + 1 2 6 5 1.5<3 + 1 1 2 1 0<1.5 2 1 1 + + 1.5<3 + 1.5<3 1 0<1.5 4 3 1 1 0 0 1 1 1 + 0<1.5 Sitke Annette Capa St. James Tofino VISIBILITY (NM) VISIBILITY (NM) 15622 VISIBILITY (NM) 16140 VISIBILITY (NM) 13654 CFOAD CLOUD CEILING (10° FT) CLOUD $\begin{vmatrix} y_2 - 1 - 2 - 5 - \\ < 1 < 2 < 5 < 10 \ge 10 \\ + + 1 & 7 & 59 \end{vmatrix}$ CEILING CEILING (10<sup>2</sup> FT) NC NC 50<80 0 0 0 0 3 35<50 0 0 0 0 3 6 + 0 0 + + + 0 0 0 + + 3 50<80 + 50<80 + + 50<80 + 0 0 0 + 1 + 0 0 + + 0 + 2 + + 1 4 0 0 0 + + 5 35<50 35<50 +1 71 35<50 0 0 0 + 5 1 11 20<35 20<35 + + + 1 2 20<35 0 1 3 12 2 4 4 3 2 2 10<20 0 10<20 + + 4 10<20 0 0 0 3 0 6<10 1 + 6<10 6<10 + + + 1 1 3<6 0 0 0 4 1 0 1.5<3 0 0 0 1 0 0 1 3<6 + + + 1 1 1.5<3 + + + + + 3<6 <del>-</del> + 3<6 1.5<3 1.5<3 + + + + + + 0<1.5 7 3 4 3 0 0<1.5 1 + + + + 9 1 1 5 0<1.5 0<1.5 Quilleyute Astoria North Bend Ocean Station Vessel P

	1/2-	1-	2-	5-	
1 /2	+	+	1	15	25
0	0	Ö	0	+	+
+	0	0	+	2	+
+	0	ō	+	6	3
+	+	1	2	16	3
+	1	1	4	6	+
+	2	1	2	1	+
+	+	+	+	+	0
3	1	+	+	O	0
		<pre></pre>	\(\frac{1}{2} - \frac{1}{1} - \cdot \frac{1}{2} - \frac{1}{1} - \frac{1}{2} - \frac{1}{1} - \fra	\( \begin{array}{c ccccccccccccccccccccccccccccccccccc	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$

CLOUD	VIS	BIL	ITΥ	(NN	1) 13	608
CEILING		1/2 -	1 -	2 -	5-	
(10 <sup>2</sup> FT)	< 1/2	<1	<2	<5	<10	<u>≩</u> 10
NC	+	+	+	+	2	40
50<80	0	0	0	0	+	+
35<50	0	0	0	0	+	1
20<35	Ó	0	0	+	1	13
10<20	0	+	+	+	8	14
6<10	0	+	+	1	7	2
3<6	+	+	1	2	3	+
1.5<3	+	+	+	+	+	+
0<1.5	1	+	+	+	+	0

LOW	VIS	IBIL	ΙTΥ	(NN	1)	5
CLOUD CEILING (10 <sup>2</sup> FT)	< 1/2	γ <sub>2</sub> - <1	1-	2 - <5	5 - <10	<u>≩</u> 10
NC	0	0	0	0	20	80
50 <b0< td=""><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></b0<>	0	0	0	0	0	0
35<50	0	0	0	0	0	0
20<35	0	0	0	0	0	0
10<20	0	0	0	0	0	0
6<10	0	0	0	0	0	0
3<6	0	0	0	0	0	0
1.5<3	0	0	0	O	0	0
0<1.5	0	0	0	0	0	0

LOW	VIS	BIL	ITY	(NN	4) 7	593
CLOUD		1/2-	1 -	b -	5 -	
(10° FT)	< 1/2	<b>^</b> <1	<2	<5	<10	≥10
NC	ſ	+	+	1	7	3
50<80	+	+	+	+	1	+
35<50	+	0	0	+	1	1
20<35	+	+	+	+	10	5
10<20	+	+	+	3	22	5
6<10	+	1	1	4	7	1
3<6	1	2	3	5	3	+
1.5<3	+	1	1	+	+	+
0<1.5	9	+	+	+	+	0

21

+ + + +

1 + +

6

8

2

+

7

2

0 + +

+ +

+ +1

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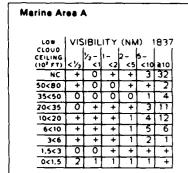
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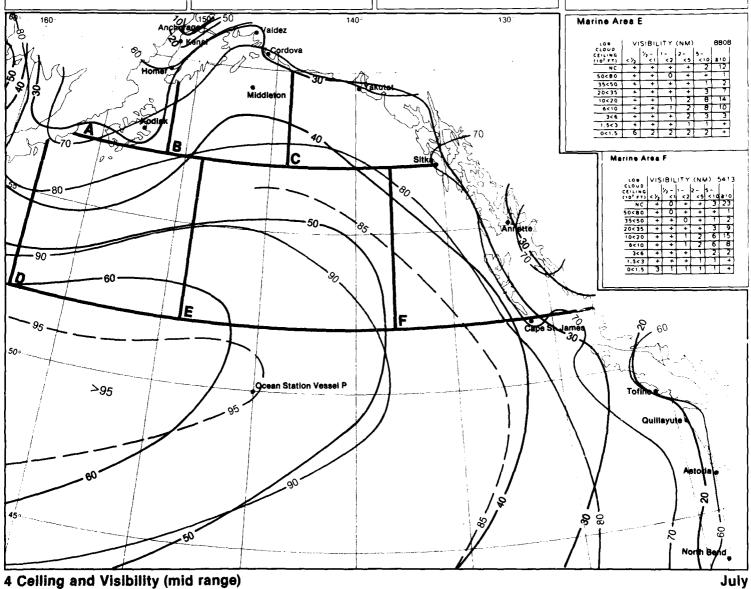


LOW	l vis	BIL	ITY	(NN	1) 3	322
CLOUD	"		1.	L	l. Ì	
CEILING	١.	/2 - '	1-	2 -	5-	
(10° FT)	< 1/2	<1	<b>_&lt;2</b>	< 5	<10	10
NC	+	0	+	+	2	27
50<80	0	0	0	Ō	+	1
35<50	0	0	0	+	1	3
20<35	0	0	+	+	1	9
10<20	+	0	+	1	4	13
6<10	+	+	+	1	6	11
3<6	+	+	+	1	3	3
1.5<3	+	+	+	T	1	+
0<1.5	3	$\vdash$	1	2	1	7

CLOUD CEILING		IBIL 1/2 ~ <1	1TY	(NN 2- <5	() 2 5-	2183 ≩10
(10° FT)	+	3	+	+	3	74
50<80	Ö	0	Ö	+	+	2
35<50	+	0	0	+	1	2
20<35	Ó	0	0	+	2	8
10<20	+	+	+	T	7	17
6<10	+	+	1	2	6	9
3<6	Ō	+	+	1	3	3
1.5<3	+	+	+	1	1	1
0<1.5	1	1	1	1	1	+

Marine Area C

Marine Ar	••	)				
CLOUD CLOUD	VIS		ITY	(NN  -	1) 7	780
CEILING (10° FT)	< 1/2	/2 - <1	<2	<5	<10	≩10
NC	+	+	+	+	3	13
50<80	+	+	+	+	+	
35<50	+	+	+	+	1	3
20<35	+	+	+	1	4	8
10<20	+	+	1	2	9	10
6<10	1	+	1	3	7	5
3<6	+	+	7	1	3	[ 1 ]
1.5<3	+	+	+	+	1	+
0<1.5	10	3	2	2	1	+



Kodiek						
C1008	VIS	11日IL シュ -	ΙΤΥ  ,	(NN  -	4) 17 L	2090 
CEILING (10 <sup>2</sup> FT)	⟨۷٫	/3 - <1	<2	<5	<10	<b>≩</b> 10
NC	+	+	+	+	5	40
50<80	0	0	+	+	1	2
35<50	0	0	+	Ŧ	1	4
20<35	+	+	+	+	4	10
10<20	+	+	+	T	4	4
6<10	+	+	+	1	3	2
3<6	+	+	1	3	3	1
1.5<3	+	+	+	+	+	+
0<1.5	2	-	1	-	+	+

Homer						
LOW	VIS	BIL	IT Y	(NA	1)	823
CLOUD			İ	١	L	1
CEILING	١.	/2 -	11 -	2 ~	5-	
(10° FT)	< 1/2	<1	< 2	< 5	<10	
NC	1	+	0	+	1	48
50<80	0	0	0	0	+	6
35<50	0	0	Ò	+	1	13
20<35	0	0	0	+	1	14
10<20	0	0	Ō	+	1	6
6<10	0	0	0	+	1	1
3<6	0	0	0	T	1	2
1.5<3	0	+	0	+	0	0
0<1.5	7	+	+	+	0	0

LO#	VIS	BIL	ITY	(NN	1)	248
CEILING		/ <sub>2</sub> -	1	<sub>2</sub>	5-	
(10° FT)	< 1/2	<1	< 2	<5	<10	<b>≩10</b>
NC	0	0	+	0	1	76
50<80	0	0	0	0	+	8
35<50	0	0	0	+	0	2
20<35	0	0	0	0	1	+
10<20	0	0	+	2	_1	_1
6<10	Ó	0	1	1	1	0
3<6	0	0	0	2	+	0
1,5<3	0	0	0	0	0	0
0<1.5	1	+	+	0	0	ō

Kenai

Cordova

Cape St. James

North Bend

Anchorage	•					
	1					
LOW	VIS	IRIT	111 4	(NN	1) 13	3030
CLOUD		1/2 -	ļ, _	h -	k. '	
CEILING			l'	٠	۲	امندا
(10 <sup>7</sup> FT)	<1/2	<1	<2	<5	< 10	₹10
NC	+	+	+	+	3	57
50<80	+	+	0	+	1	9
35<50	0	0	0	+	1	6
20<35	0	+	+	+	1	7
10<20	+	0	+	+	2	5
6<10	+	0	+	+	1	2
3<6	_+	+	+	+	1	1
1,5<3	+	+	+	+	+	+
0<1.5	+	+	+	+	+	+

Veldez						
FO#	VIS	BIL	ITY	(NN	1) 2	205
CEILING	i	1/2 -	1 -	2	5-	
(10° FT)	< 1/2	< 1	< 2	<5	<10	≩10
NC	+	+	1	3	5	37
50<80	+	+	0	+	3	5
35<50	0	0	0	+	2	2
20<35	+	0	+	+	2	3
10<20	+	+	+	1	5	3
6<10	+	+	+	2	3	1
3<6	+	2	1	5	4	+
1,5<3	+	1	+	Ž	1	0
0<1.5	3	1	+	+	+	+

LO W	( VIS	BIL	ΙTΥ	(NN	1) 1	48
CLOUD		1/2-	١, _	2 -	5-	
(10° FT)	< 1/2	/2 =   <1	< 2	<5	<10	≥10
NC	0	+	+	+	2	43
50<80	0	0	0	0	+	2
35<50	0	0	0	+	+	3
20<35	0	+	Ō	+	1	5
10<20	+	0	+	17	5	13
6<10	+	+	1	3	4	2
3<6	+	1	1	2	1	1
1.5<3	0	0	+	+	+	0
0<1.5	4	2	1	1	+	0

Middleton

Annette

Astoria

1,0 W	VI\$	BIL	ΙTΥ	(NN	1) 13	319,
CLOUD CEILING (10° FT)	< 1/2	/ <sub>2</sub> -	1- <2	2 - <5	5 - <10	≥10
NC	+	+	+	1	2	31
50<80	0	0	0	+	+	2
35<50	0	Ō	+	+	1	4
20<35	+	+	+	1	6	13
10<20	+	+	1	5	9	7
6<10	0	1	1	3	3	1
3<6	+	+	ì	1	1	+
1.5<3	+	0	+	+	+	+
0<1.5	1	1	1	+	+	+

LOW	VIS	BIL	ITY	(NN	1) 15	938
CLOUD	•	lv	1 -	l <sub>2 -</sub>	ا <sub>م -</sub>	
(10° FT)	< 1/2	<1	<2	<5	<10	≥10
NC	1	1	$\neg$	1	3	25
50<80	+	+	+	+	+	3
35<50	0	+	+	+	1	2
20<35	+	+	÷	+	2	5
10<20	+	+	1	2	7	10
6<10	+	+	1	3	6	3
3<6	+	1	3	4	4	2
1.5<3	+	+	+	+	+	+
0<1.5	1	+	+	+	+	+

	1					
CLOUD CEILING	VIS	11日1L    /2	!TY    1-	(NN  -	1)   <sub>5-</sub>	20E
(10° FT)	< 1/2	1>	<2	¯ <5	<10	≥10
NC	+	0	0	1	11	52
50<80	0	0	0	0	1	3
35<50	Ò	0	0	0	4	6
20<35	0	0	0	0	5	1
10<20	0	0	0	1	2	+
6<10	0	0	+	0	+	0
3<6	0	0	1	+	+	0
1.5<3	0	0	0	0	0	0
0<1.5	0	1	5	+	0	0

CTOND FOM	VIS	BIL	IT Y	(NN	1) 15	580
CEILING		1/2 -	1-	2 –	5 -	
(10 <sup>2</sup> FT)	< 1/2	<1	<2	<5	<10	≥10
NC	+	+	+	+	1	40
50<80	0	0	+	+	+	3
35<50	0	+	0	+	+	4
20<35	0	+	+	+	1	9
10<20	+	+	+	1	4	10
6<10	+	+	1	2	4	4
3<6	+	+	2	3	- 3	2
1.5<3	+	+	+	+	+	+
0<1.5	1	1	+	+	+	+

LOW	VIS	BIL	ITY	(NA	1) 16	604
CEILING	1	1/2 -	1 -	2 -	5-	
(10° FT)	< 1/2	< 1	<2	< 5		≥10
NC	1	+	+	1	7	61
50<80	+	+	0	+	+	+
35<50	+	+	0	0	+	1
20<35	+	+	+	+	+	3
10<20	+	+	+	+	2	4
6<10	+	+	+	1		1
3<6	+	+	+	1	-	1
1.5<3	+	+	+	+	+	+
0<1.5	9	1	+	+	+	+

LOW	VIS	BIL	JTY.	(NN	4) 13	350
CLOOD		/ <sub>2</sub> -	l, _	3_		
(10° FT)	< 1/2	<1	<2	< 5	<10	≥10
NC	+	+	+	1	9	52
50<80	+	+	+	0	+	1
35<50	+	0	+	+	+	1
20<35	+	+	+	+	3	2
10<20	+	+	+	1	4	
6<10	+	1	1	2	2	+
3<6	1	2	1	,	1	4.
1.5<3	+	+	+	+	+	+
0<1.5	8	1	+	+	+	Ö

Tofino

Quillayute						
CLOUD FOM			JTY I	(N.	/I) 4	1394
CEILING (10° FT)	<1/2	/ <sub>2</sub> - <1	1-	2 ~ < 5	5 - <10	≥10
NC	1	+	+	1	16	24
50<80	+	0	0	0	+	+
35<50	Ō	0	0	+	1	+
20<35	Ō	+	+	+	5	3
10<20	+	+	+	3	15	3
6<10	+	1	1	4	- 5	+
3<6	+	2	1	2	1	+
1.5<3	+	+	+	+	0	0
0<1.5	5.	2	+	+	+	0

360	1) 13	(NN	ITY	IBIL	VIS	LOW
≥10	5-	2 - <5	1-	γ <sub>2</sub> -	< 1/2	CLOUD CEILING (10° FT)
210	× 10	(5)	< 2	_<1	< /2	
41	3	+	+	+	+	NC
1	+	+	_ 0	0	0	50<80
1	+	+	0	0	Ó	35<50
10	1	+	+	+	+	20<35
11	7	+	+	+	+	10<20
2	7	2	+	+	+	6<10
1	4	3	1	+	+	3<6
0	+	+	+	+	+	1.5<3
0	+	+	+	1	2	0<1.5

LOW	VIS	BIL	JTY.	(NN	1)	6
CLOUD CEILING (10° FT)	< 1/2	り <sub>2</sub> - くり	1-	2 - <5	5 - <10	≥10
NC	0	0	0	0	15	85
50<80	0	0	0	0	0	0
35<50	0	0	C	0	0	0
20<35	0	0	0	0	0	0
10<20	0	0	Ç.	0	0	0
6<10	0	0	0	0	0	0
3<6	0	0	Ö	0	0	0
1.5<3	0	0	0	0	ō	0
0<1.5	0	0	0	0	0	0

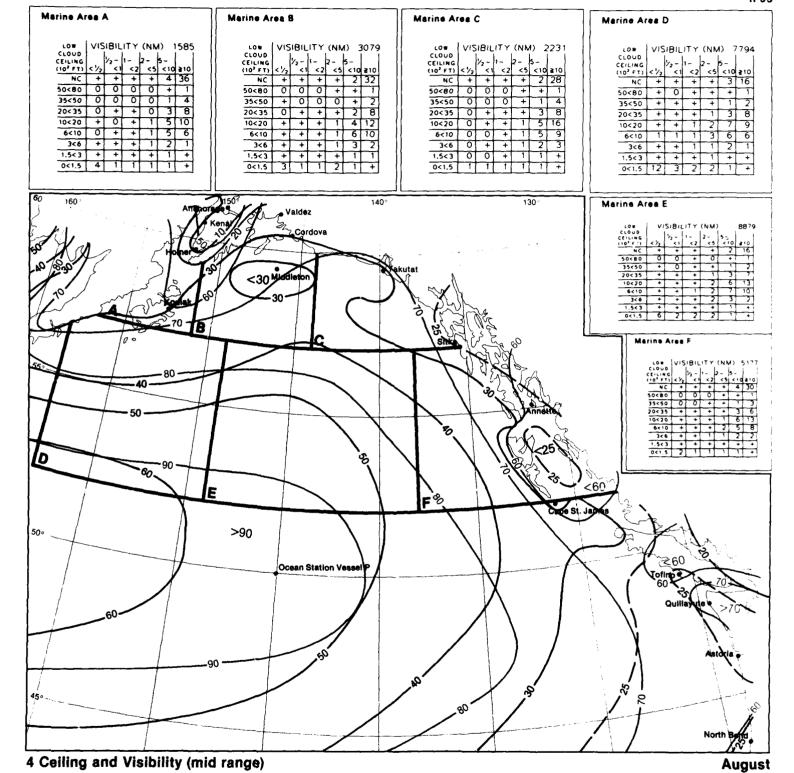
LOW	VIS	iBil	ΙTΥ	(NN	1) 7	<sup>7</sup> 52 '
CLOUD		ν <sub>2</sub> -	1 -	2 -	5	1
(10° FT)	<1/2	T<1	<2	<5	<10	≥10
NC	1	+	+	+	10	4
50 <b0< td=""><td>+</td><td>Ô</td><td>0</td><td>0</td><td>1</td><td>+</td></b0<>	+	Ô	0	0	1	+
35<50	0	0	0	+	1	+
20<35	+	0	+	+	11	4
10<20	+	+	+	2	21	6
6<10	+	1	2	3	6	1
3<6	1	2	3	5	3	+
1.5<3	+	1	1	+	+	Ō
0<1.5	8	+	+	+	+	0

**August** 

Sitke

4 Low Cloud Ceiling and Visibility

Ocean Station Vessel P



#### II-100

•	0	9	ı	ĸ

CLOUD VISIBILITY (NM) 16561
CEILING (10° FT) CV2 

10W	VIS	باهاد	iΤΥ	(NN	1)	789	•
CLOUD CEILING (10° FT)	< 1/2	/ <sub>2</sub> - く1	1 - < 2	2 - <5	5- <10	≥10	
NC	+	+	+	+	1	42	j
50<80	0	0	0	0	+	5	
35<50	0	0	+	0	+	18	
20<35	Ô	0	0	+	2	18	ļ
10<20	0	0	0	+	1	5	1
6<10	0	0	0	+	1	2	1
3<6	0	0	0	1	1	1	
1.5<3	0	0	0	0	0	+	i
0<1.5	1	0	+	+	0	0	

#### Kenei

10#	VIS	BIL	ΙΤΥ	(NA	1)	240
CLOUD CEILING (10° FT)	< ½	ソ <sub>フ</sub> ー <1	1-	2 - <5	5- <10	≩10
NC	1	0	+	1	4	52
50<80	0	0	0	0	1	13
35<50	0	Ō	0	0	1	9
20<35	0	+	0	0	4	5
10<20	0	0	0	2	3	2
6<10	0	0	0	+	0	0
3<6	0	0	0	0	0	0
1.5<3	0	0	0	0	0	0
0<1.5	1	0	0	0	0	0

#### Anchorage

LOW	) VIŞ	IBIL	IT Y	(NN	1) 12	58
CLOUD CEILING (10° FT)	< 1/2	り <sub>2</sub> - <1	1- <2	2- <5	5~ <10	<b>≥10</b>
NC	+	+	+	+	2	56
50<80	+	+	+	+	1	11
35<50	+	0	0	+	1	7
20<35	0	0	+	+	1	6
10<20	0	+	+	+	1	4
6<10	0	+	+	+	2	2
3<6	+	+	+	1	2	2
1,5<3	+	+	+	+	+	+
0<1.5	+	+	+	+	+	+

#### Valdez

LOW	VIS	BIL	ITY	(NN	4) 1	974
CLOUD CEILING (10 <sup>7</sup> FT)	< 1/2	ソ <sub>2</sub> - <1	1 ~ < 2	2 - < 5	5- <10	<b>≩</b> 10
NC	+	+	+	4	11	35
50<80	+	0	0	+	5	6
35<50	0	+	+	1	2	2
20<35	+	0	+	+	1	2
10<20	0	+	+	2	4	2
6<10	+	+	+	1	2	1
3<6	+	1	+	3	5	+
1.5<3	+	+	+	2	2	+
0<1.5	1	1	+	+	+	0

#### Middleton

LO <b>W</b>	VIS	iBiL	iŤΥ	(NN	1) 1	203
CLOUD CEILING (10 <sup>2</sup> FT)	< 1/2	1/2 - <1	1-	2 - < 5	5 - <10	<u>-</u> 10
NC	+	+	0	+	6	44
50<80	0	0	+	0	+	1
35<50	0	0	0	0	1	1
20<35	0	0	0	+	3	5
10<20	0	+	+	2	7	9
6<10	0	+	1	4	5	3
3<6	0	Ĩ,	1	1	+	Ó
1.5<3	0	0	0	0	0	0
0<1.5	2	1	1	+	0	0

#### Cordova

LO#	VIS	iB≀L	ΙΤΥ	(NN	0 12	930
CLOUD CEILING (10° FT)	< 1/2	√2 - <1	1-	2 - <5	5 - <10	≩10
NC	+	+	+	1	2	34
50<80	+	+	0	+	+	3
35<50	0	0	+	+	2	6
20<35	0	+	+	2	11	13
10<20	+	+	1	5	7	4
6<10	+	+	1	2	1	+
3<6	+	+	+	+	+	+
1.5< 3	0	0	0	0	+	0
0<1.5	+	+	1	+	+	+

#### Yakutat

LOW	VIS	iBiL	IT Y	(NN	4) 15	427
CLOUD CEILING (10° FT)	< 1/2	/ <sub>2</sub> -	1-	2 - < 5	5 - < 10	≥10
NC	1	1	1	1	4	27
50<80	+	+	+	+	1	3
35<50	+	+	+	+	1	3
20<35	+	+	+	1	4	7
10<20	+	+	1	3	10	7
6<10	+	+	1	3	5	2
3<6	+	1	2	3	3	1
1.5<3	+	+	+	+	+	+
0<1.5	1	+	+	+	+	+

#### Sitke

LOW	VIS	BIL	ΙΤΥ	(NN	1)	234
CEILING	. :	½-	1~	-	5-	
(10° FT)	< 1/2	< 1	<2	<5	<10	≥10
NC	0	0	0	0	3	33
50<80	0	0	0	Ö	1	8
35<50	0	Ö	0	+	7	9
20<35	0	0	1	4	11	7
10<20	Ċ	0	1	4	3	+
6<10	0	0	+	1	1	0
3<6	0	0	+	1	Ò	0
1.5<3	0	0	0	0	0	0
0<1.5	0	1	1	1	0	0

#### Annette

L O #	VISIBILITY (NM) 15105								
CLOUD CEILING (10° FT)	< 1/2	1/2 - < 1	1 - < 2	2- <5	5 - < 10	≥10			
NC NC	+	+	+	7	2	39			
50<80	+	0	0	+	+	3			
35<50	0	+	+	+	1	4			
20<35	+	Ô	+	+	2	9			
10<20	+	+	+	2	5	9			
6<10	+	+	1	3	4	3			
3<6	+	+	1	3	3	1			
1.5<3	+	+	+	+	+	+			
0<1.5	2	+	+	+	+	0			

#### Cape St. James

LOW	VIS	VISIBILITY (NM) 16996									
CLOUD CEILING (10° FT)	< 1/2	√2 - <1	1- (2	2- <5	5 - <10	≥10					
NC	1	+	+	2	9	58					
50 <b0< td=""><td>+</td><td>+</td><td>+</td><td>+</td><td>+</td><td>+</td></b0<>	+	+	+	+	+	+					
35<50	+	+	+	+	+	1					
20<35	+	+	+	+	1	2					
10<20	+	+	+	1	3	3					
6<10	+	+	+	1	1	1					
3<6	+	+	1	1	1	+					
1.5<3	+	+	+	+	+	+					
0<1.5	9	1	+	+	+	+					

### Tofino

			_			
LOW	VIS	BIL	IT Y	(NN	4) 13	3325
CLOUD		١.	l.	l_	ļ_	l .
CEILING		1/2 -	11-	-	5 -	
(10° FT)	< 1/2	< 1	< 2	< 5	<10	≥10
NC	+	1	1	2	, 5	52
50<80	0	+	0	+	1	1
35<50	0	0	+	+	1	1
20<35	+	+	+	+	3	2
10<20	+	+	+	1	3	
6<10	+	1	1	_1	1	+
3<6	1	2	1	1	+	+
1.5<3	+	+	+	+	+	0
0<1.5	6		+	+	0	0

#### Quilleyute

LO#	VIS	IBIL	ITY	(NN	1) 4	108
CLOUD	ļ	1/2 -	1	b-	5-	l
(10° FT)	< 1/2	<b>1</b> <1	<2	<5	<10	≥10
NC	1	1	+	2	25	21
50<80	+	+	0	+	1	+
35<50	+	0	+	+	2	+
20<35	+	+	+	1	7	1
10<20	+	+	1	3	12	2
6<10	+	1	2	2	4	+
3<6	+	2	1	2	1	+
1.5<3	+	+	+	+	+	0
0<1.5	3	1	+	+	+	+

#### Astoria

LO#	VIS	iBiL	IT Y	(NN	1) 12	978
CLOUD		1/2-	ļ,_	2 -	5 -	
(10° FT)	< 1/2	< 1	< 2	< 5	<10	≥10
NC	_ i	+		1	7	47
50<80	C	0	0	0	+	1
35<50	0	0	0	0	+	2
20<35	+	+	0	+	2	8
10<20	+	+	+	1	6	6
6<10	+	+	+	2	6	2
3<6	+	+	1	2	2	+
1.5<3	+	+	+	+	+	0
0<1.5	1	1	+	+	+	Ô

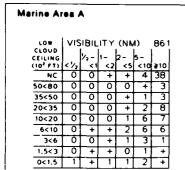
#### North Bend

No Data Available

#### Ocean Station Vessel P

£0₩	VIS	IBIL	ITY	(NN	t) 7	<sup>7</sup> 263
CEILING (10° FT)	< 1/2	½ −   <1	1~ <2	2 - <5	5 - <10	≥101
NC	+	+	+	1	20	10
50<80	0	0	0	+	+	+
35<50	0	0	0	+	1	1
20<35	+	+	+	+	11	4
10<20	+	+	1	3	19	3
6<10	+	1	1	3	3	+
3<6	1	2	2	3	1	+
1.5<3	+	+	+	+	+	+
0<1.5	6	+	+	+	+	+

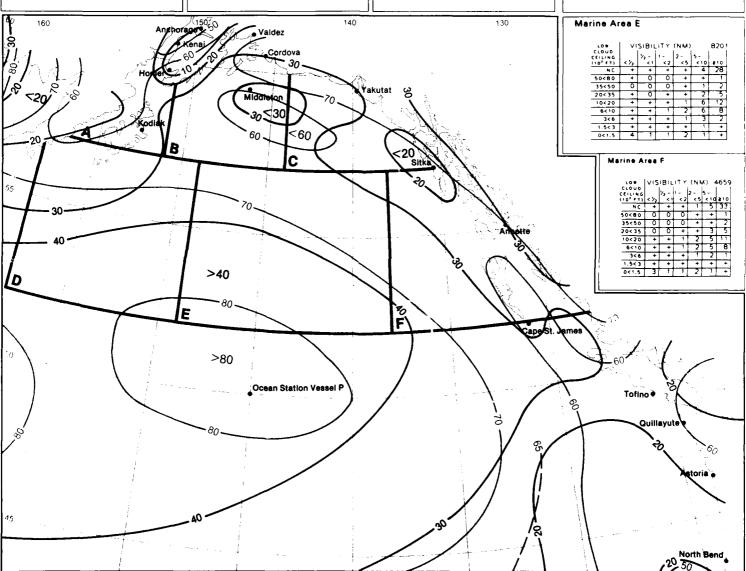
September



Marine Area B									
LO#	VIS	iBiL	ITY I.	(N.	4) 2 L	707			
CEILING (10° FT)	<1/2	//2 -   <1	1- <2	7- <5	5- <10	<u>≥</u> 10			
NC	ō	+	0	+	3	35			
50<80	0	0	+	0	+	1			
35<50	0	+	0	+	+	2			
20<35	0	+	0	+	2	8			
10<20	0	+	+	2	4	12			
6<10	0	+	+	1	5	9			
3<6	+	0	+	1	2	2			
1.5<3	0	+	+	1	1	+			
0<1.5	1	1	-	3	2	+			

Marine Area C									
LOW	lvis	BIL	ITY	(NN	4) 1	916			
CFOOD		1	i		ĺ	ΙĪ			
CEILING	١.	/2 -	1-	2 -	5-	li			
(10° FT)	< 1/2	L <1	< 2	<5	<10	<u>≥</u> 10			
NC	0	0	0	+	3	35			
50<80	0	0	0	0	+	ī			
35<50	Ö	0	+	+	+	2			
20<35	0	0	+	+	3	7			
10<20	+	+	+	2	7	14			
6<10	+	+	+	2	4	5			
3<6	+	+	1	1	2	2			
1.5<3	+	+	+	+	+	+			
0<1.5	1	1	1	2	1	1			

Marine Area D									
		_	_						
10 M	VIS	BIL	,ITY	(NV	A) 7	409			
CLOOD	ĺ	l. '	١.	L	i. I				
CEILING	Ι.	1/2-	1 -	2 -	<b>&gt;</b> -				
(10° FT)	< 1/2	< 1	<2	<5	< 10	≥10			
NC	+	+	+	1	6	25			
50<80	+	0	+	+	+	1			
35<50	0	+	+	+	1	2			
20<35	+	+	+	1	3	9			
10<20	+	+	+	2	7	9			
6<10	+	+	1	3	6	6			
3<6	+	+	1	1	2	1			
1.5<3	+	+	+	+	+	+			
0<1.5	4	1	1	1	1	+			



4 Ceiling and Visibility (mid range)

September

#### 11-102

#### Kodiak

CLOUD CELLING (10° FT) (10° C) 
#### Homer

| COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | COUNTY | C

#### Kensi

LOW CLOUD CEILING (10°F1) < 1/2 - 1 - 2 - 5 - (10°F1) < 1/2 - 1 - 2 - 5 - (10°F1) < 1/2 - 1 - 2 - 5 - (10°F1) < 1/2 - 1 - 2 - 5 - (10°F1) < 1/2 - 1 - 2 - 5 - (10°F1) < 1/2 - 1 - 2 - 10°F1 < 1/2 - 10

#### Anchorage

LOW CLOUD CEILING (10° FT) (10

#### Valdez

#### Middleton

LOW	VIS	BIL	Y TI.	(NN	(N	24
CLOUD CEILING (10° FT)	< '/2	γ <sub>2</sub> - <1	1 - < 2	2- <5	5 - <10	≥10
NC	0	0	0	+	8	34
50<80	0	0	0	0	0	+
35<50	Ö	0	+	0	1	1
20<35	0	0	+	1	4	8
10<20	0	+	1	4	11	10
6<10	+	1	2	5	4	1
3<6	+	1	+	1	+	0
1.5<3	0	0	0	0	0	0
0<1.5	1	+	+	+	+	0

#### Cordova

#### Yakutat

#### Sitka

LO#	VIS	BIL	TI.	(NN	A)	247
CLOUD	Ι,	ا - ولا	۱	la _	5-	
(10° FT)	< 1/2	/2 - <1	<2	<5	<10	≥10
NC	ō	0	0	+	1	13
50<80	Ó	0	0	0	2	5
35<50	0	0	0	0	10	15
20<35	0	0	0	6	24	10
10<20	0	0	0	2	7	2
6<10	0	0	0	0	1	0
3<6	0	0	0	0	0	0
1.5<3	0	0	0	0	0	0
0<1.5	0	+	1	+	0	0

#### Annette

LOW	VIS	BIL	ΙΤΥ	(NN	1) 15	659
CEILING	}	1/2-	1- 1	2-	5- 1	
(10° FT)	< 1/2	<1	<2	< 5	<10	≥10
NC	+	+	+	1	5	28
50<80	+	0	0	0	+	2
35<50	0	0	0	+	-	4
20<35	+	+	+	+	4	12
10<20	+	+	+	4	9	11
6<10	+	+	1	3	4	2
3<6	+	+	1	3	2	+
1.5<3	+	+	+	+	+	+
0<1.5	1	+	+	+	+	+

#### Cape St. James

LOW	) VIS	BIL	YTI.	(NN	4) 17	7505
CLOOD		l,	l.	L	l_	,
CEILING	( . j	ا - دلا	( i – i	•	5	ìí
(10° FT)	< 1/2	< 1	< 2	< 5	<10	≥10
NC	+	+	+	2	12	48
50<80	+	0	0	+	+	+
35<50	+	0	0	+	+	1
20<35	+	+	+	+	2	4
10<20	+	+	+	2	4	4
6<10	+	1		7	1	+
3<6	+	1	1	1	1	+
1.5<3	+	+	+	+	+	+
0<1.5	9	1	1	+	+	+

#### Tofino

LOW	Vis	SIBIL	ĮŤY	(NN	41 13	3480	)
CLOUD CEILING (10° FT)	< 1/2	り <sub>2</sub> -	1 < 2	2 - <5	5 -	≥10	
NC NC	+	+	1	2	11	47	l
50<80	+	0	+	+	1	1	
35<50	0	+	+	+	1	2	
20<35	+	+	+	1	6	3	
10<20	+	1	1	2	3	1	ì
6<10	+	2	1	2	1	+	
3<5	1	2	1	1	+	+	١
1.5<3	+	+	+	+	+	0	
0<1.5	4	+	+	0	+	0	

#### Quillayute

LOW	VIS	IBIL	ITY	(NN	1) 4	130
CLOUD CEILING (10 <sup>2</sup> FT)	< ½	ر ا> دا	1-	2 - <5	5- <10	≥10
NC	2	1	+	2	26	15
50<80	0	0	0	+	1	1
35<50	+	+	+	+	3	+
20<35	+	+	+	1	8	1
10<20	+	1	+	5	11	1
6<10	+	2	2	3	2	+
3<6	1	2	1	1	1	+
1.5<3	+	+	+	+	+	+
0<1.5	2	1	+	+	+	0

#### Astoria

LOW	VIS	IBIL	IT Y	(NN	1) 1;	3500
CLOUD CEILING (10° FT)	< 1/2	/ <sub>2</sub> - <1	1-	2 – <5	5 ~ <10	≥10
NC	2	1	+	2	8	43
50<80	+	0	0	+	+	2
35<50	+	0	0	+	1	2
20<35	+	0	O	+	3	7
10<20	+	+	+	1	6	5
6<10	+	+	1	3	5	-1
3<6	+	+	1	2	2	+
1.5<3	+	+	+	+	+	+
0<1.5	2	1	+	+	+	+

#### North Bend

No Data Available

#### Ocean Station Vessel P

(½ +	1/2 - <1	1-	2 - <5	5 -	
₹'⁄2 +	/2 - <1	<2	2-	o -	
+	< 1	< 2			
+				< 10	≥10
	+	+	1	26	12
0	0	0	+	+	+
0	0	0	+	1	+
+	+	+	+	12	5
+	+	1	3	18	4
0	+	1	2	2	1
+	1	1	2	1	+
+	+	+	+	+	0
2	+	+	0	+	0
	0 + + 0 + +	0 0 + + + + + + + + + + + + + + + + + +	0 0 0 + + + + + 1 0 + 1 + 1 1 + + +	0 0 0 + + + + + + + 1 3 0 + 1 2 + 1 1 2 + + + +	0 0 0 + 1 + + + + 12 + + 1 3 18 0 + 1 2 2 + 1 1 2 1 + + + +

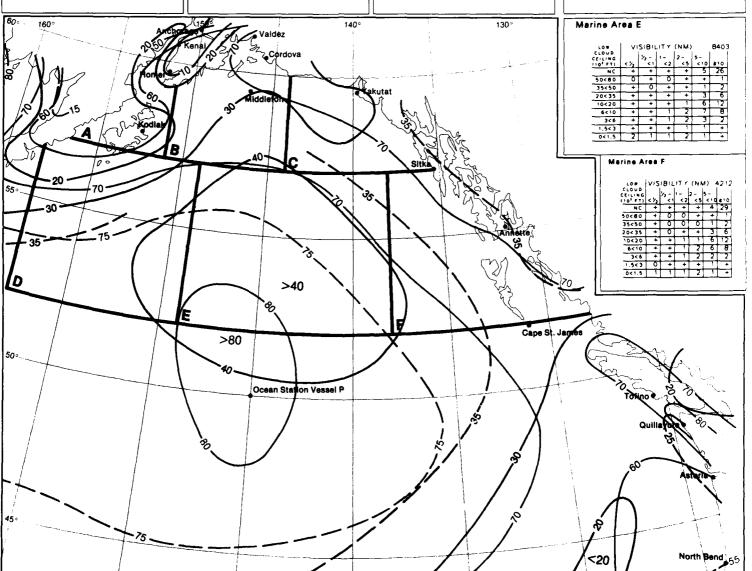
Marine Ar	•• /	4					
LOW	VIS	BIL	ITY	(NN	0	838	1
CLOUD	ļ	l.	l. I		l.	i I	
CEILING	1.	72 -	1-	2-	5-	ll	
(10° FT)	< 1/2	<1	<2	<5	<10	<b>≩</b> 10	
NC	0	0	+	0	5	38	
50<80	0	0	0	0	+	1	
35<50	0	0	0	+	1	1	
20<35	0	+	+	+	2	7	
10<20	0	0	+	1	5	11	
6<10	0	0	+	1	6	5	
3<6	0	+	+	1	2	2	
1.5<3	0	0	1	+	+	+	
0<1.5	1	+	1	1	1	+	

Marine Ar	•a l	3				
LOW CLOUD CEILING (10 <sup>3</sup> FT)	VIS	1BIL	1TY	(NN 2- <5	5 –	3110    ≥10
NC	+	+	+	+	4	33
50<80	0	0	0	+	+	1
35<50	+	0	+	+	1	2
20<35	+	0	+	+	2	9
10<20	+	0	+	2	6	12
6<10	+	+	+	2	5	8
3<6	+	+	+	1	2	2
1.5<3	+	+	+	+	+	Ĩ
0<1.5	1	1	1	2	1	+

LOW	VIS	iBiL	TY,	(NA	1)	1910
CLOUD		1/2 -	1_	b	5 -	i
(10° FT)	<1/2	´ < 1	<2	<5	<10	≥10
NC	+	0	0	+	5	28
50<80	0	0	0	0	+	1
35<50	0	0	0	+	1	3
20<35	+	+	+	+	3	10
10<20	0	+	+	2	6	11
6<10	+	+	+	2	7	8
3<6	+	+	+	2	2	1
1,5<3	+	+	+	1	1	+
0<1.5	+	+	+	2	1	+

Marine Area C

LO#	VIS	IBIL	JTY.	(NA	A) 7	114
CLOUD	i	/2 -	),_	b- '	k_	l
(10° FT)	< 1/2	1>	<2	<5	<10	≥10
NC	+	0	+	+	6	27
50<80	0	+	0	+	+	-
35<50	0	0	+	Ŧ	1	2
20<35	0	+	+	1	3	12
10<20	+	+	+	2	6	10
6<10	+	+	1	2	6	5
3<6	+	+	1	1	2	Ī
1,5<3	+	+	+	+	+	+
0<1.5	1	1	1	2	1	+



4 Ceiling and Visibility (mid range)

October

Kodiak						
LOW	VIS	SIBIL	JT Y	(NN	1) 17	706
CLOUD	i	ĺv 1	ļ,_ I	- I	<b>k</b> _	İ
CEILING (10 <sup>2</sup> FT)	<1/2	\ \ <1	<2	< 5	<10	210
NC	+	+	+	+	11	37
50<80	0	0	0	+	1	7
35<50	0	0	+	+	2	3
20<35	+	+	+	1	9	7
10<20	+	+	1	4	8	2
6<10	+	+	+	2	2	+
3<6	+	+	+	2	1	+
1.5<3	+	+	+	+	+	+
0<1.5	1		1	T1	+	0

Homer						
C7OND FO#	VIS	i Bit	IT Y	(NN	1)	942
CEILING	1	1/2-	1-	2-	5 -	
(10° FT)	< 1/2	<1	<2	<5	<10	≥10
NC	0	0	0	0	+	44
50<80	0	0	0	0	0	4
35<50	0	0	0	0	+	9
20<35	0	0	0	1	4	15
10<20	0	+	0	2	4	7
6<10	0	0	0	1	1	1
3<6	0	+	+	1	1	1
1.5<3	0	0	0	0	0	0
0<1.5	+	1	1	+	0	0

LOW	VIS	BIL	ΙŤΥ	(NN	1)	240
CLOUD CEILING		1/2-	1-	2-	5-	
(10' FT)	< 1/2	_<1	< 2	<5	<10	≩10
NC	0	Ō	0	0	_3	66
50 <b0< td=""><td>0</td><td>0</td><td>0</td><td>0</td><td>_0</td><td>4</td></b0<>	0	0	0	0	_0	4
35<50	Ò	0	0	0	3	3
20<35	+	0	+	1	4	5
10<20	Ô	0	0	1	2	2
6<10	0	+	0	0	+	0
3<6	Ó	0	0	0	0	0
1.5< 3	0	0	0	0	0	0
0:15	2	1	1	+	0	0

Kenei

Cordova

Cape St. James

North Bend

					•	Anchorage
1193	() 13	(NM	ITY	IBIL	VIS	LOW
	i i	1 1		l. 1		CLOUD
	5-	2-	1 -	/2 -		CEILING
10	<10	< 5	<2	<1	< 1/2	(10° FT)
54	2	+	+	+	1	NC
9	+	+	+	0	0	50<80
6	+	+	+	+	0	35<50
6	1	+	+	+	0	20<35
4	1	1	+	+	+	10<20
ī	1	+	+	+	+	6<10
1	2	1	+	+	+	3<6
+	+	+	+	+	+	1.5<3
+	+	1	1	1	1	0<1.5

Valdez						
LOW	VIS	BIL	IT Y	(NN	<b>1</b> ) 1	904
CLOUD	i	1/2-	1-	2-	5 -	
(10° FT)	< 1/2	< 1	< 2	< 5	<10	≥10
NC	+	+	+	3	12	31
50<80	+	+	0	+	6	9
35<50	0	0	0	+	2	1
20<35	0	0	+	1	2	1
10<20	+	0	+	3	5	+
6<10	0	+	+	2	3	+
3<6	+	+	+	4	3	+
1.5< 3	0	+	+	1	+	Ō
0<1.5	2	4	2	1	+	+

LO.	VIS	BIL	ITY	(NN	1) 1	200
CLOUD	ł	1/2 -	1 - 1	b- 1	5 1	
(10° FT)	< 1/2	<b>1</b> < 1	< 2	<5	< 10	≥10
NC	0	0	+	+	12	25
50<90	0	0	0	0	1	1
35<50	0	0	0	0	-1	1
20<35	0	+	+	+	6	8
10<20	0	0	+	3	13	6
6<10	0	+	2	5	4	2
3<6	+	+	+	1	+	+
1,5<3	0	0	0	0	0	0
0<1.5	+	2	2	1	0	0

Middleton

Annette

Astoria

LO#	VIS	IBIL	YTI.	(NN	1) 12	678
CLOUD	}	1/2-	ļ	2-	5_	
(10° FT)	<1/2	<b>(</b> < 1	<2	< 5	<10	≩10
NC	+	+	+	1	3	38
50<80	0	+	0	+	+	3
35<50	0	+	0	+	1	6
20<35	+	+	+	2	10	10
10<20	+	+	1	5	9	3
6<10	0	+	+	1	1	+
3<6	0	+	+	+	+	+
1.5<3	0	+	0	+	+	+
0<1.5	+	1	1	1	+	+

Yakutat						
low.	lvis	ıRıı	ITY	(NA	4) 15	373
CLOUD	, ,	1/2 -	I	2-	s-	
(10° FT)	< 1/2	<b>1</b>	<2	< 5	<10	≥10
NC	+	+	+	1	6	27
50<80	Ó	+	+	+	1	3
35<50	0	+	0	+	1	3
20<35	+	+	+	١	6	6
10<20	+	+	1	5	13	4
6<10	+	+	1	4	4	1
3<6	+	+	1	2	2	+
1.5<3	0	+	+	+	+	+
0<1.5	1	2	1	+	+	ō

Tofino

Sitke						
LO#	l vis	IBIL	ITY	(NN	1)	24
CLOUD		ļ	i. I	_		
CEILING (10° FT)	< 1/2	/2 - <1	<2	2- <5	2.10	≥10
		_				= '
NC	0	0	0	0	6	21
50<80	0	0	0	0	1	2
35<50	0	0	0	Ö	9	2
20<35	0	0	0	9	18	2
10<20	0	0	4	10	4	+
6<10	0	+	1	2	1	٥
3<6	0	0	0	+	+	0
1.5<3	0	0	0	0	0	0
0<1.5	1	0	1	3	+	0

LOW	VIS	IBIL	IΤΥ	(NN	1) 15	069
CEILING	} :	1/2-	l,_	2-	5-	
(10° FT)	< 1/2	<b>1</b> <1	<2	<5	<10	≥10
NC	+	+	+	1	2	28
50 <b0< td=""><td>+</td><td>0</td><td>0</td><td>+</td><td>+</td><td>2</td></b0<>	+	0	0	+	+	2
35<50	+	+	+	+	1	4
20<35	0	+	+	1	5	12
10<20	Ó	+	+	4	12	12
6<10	+	+	1	3	4	1
3<6	+	+	1	2	1	+
1,5<3	+	+	+	+	+	+
0<1.5	1	+	+	+	+	0

LOW	VIS	IBIL	ITY.	(NN	1) 17	000
CEILING	]	/ <b>&gt;</b> -	1 -	2-	5 –	
(10 <sup>2</sup> FT)	< 1/2	<b>`&lt;</b> 1	< 2	< 5	<10	≥10
NC	+	+	+	1	10	47
50<80	0	+	0	+	+	+
35<50	+	+	0	+	+	1
20<35	+	+	+	+	2	6
10<20	+	+	+	2	7	6
6<10	+	+	1	2	2	+
3<6	+	1	1	2	1	+
1.5<3	+	+	+	+	+	+
0<1.5	4	1	+	+	+	+

LOW	VIS	BIL	ITY	(NN	1) 13	338
CLOUD		1/2-	1-	2 -	5~	
(102 FT)	< 1/2	< 1	<2	<5	<10	≥10
NC	+	+	1	2	11	42
50<80	+	+	+	+	1	2
35<50	+	+	+	+	2	2
20<35	+	+	+	1	10	4
10<20	+	+	1	3	5	1
6<10	+	2	2	2	1	+
3<6	1	2	+	+	+	0
1.5<3	+	+	+	+	0	0
0<1.5	1	+	+	+	+	0

LOW	VIS	BIL	ITY	(NN	1) 4	22
CLOUD	ļ	l.	١.	١,	_ '	1
CEILING (10 <sup>2</sup> FT)	<1/2	/2 - <1	<2	<5	<10	≥10
NC	1	1	+	1	23	11
50<80	0	0	0	+	2	+
35<50	+	+	0	+	4	1
20<35	+	+	+	2	12	1
10<20	+	1	1	7	12	+
6<10	+	2	2	4	3	+
3<6	1	2	1	1	1	Ő
1.5<3	+	+	+	+	+	Õ
0<1.5	1	1	+	+	+	O

LOW	VIS	IBIL	ITY	(NN	0.13	311
CEILING		1/2 -	1-	2-	s	
(10 FT)	< 1/2	<b>*</b> <1	<2	<5	<10	≥10
NC	1	+	+	1	7	37
50 <b0< td=""><td>+</td><td>0</td><td>0</td><td>+</td><td>+</td><td>2</td></b0<>	+	0	0	+	+	2
35<50	+	0	+	+	1	3
20<35	0	+	+	+	5	9
10<20	+	+	+	1	7	5
6<10	+	+	1	3	5	7
3<6	+	+	1	2	1	+
1.5<3	+	+	+	+	+	Ō
0<1.5	1	+	+	+	+	+

	LOW   VI
	[ CLOUD
	CEILING
	[[ (10° FT) [<½
No Data Available	NC +
	50<80 C
	35<50 C
	20<35 4
	10<20 +
	6<10

LOW	) VIS	BIL	ITY.	(NN	1) 7	7284
CLOOD	İ	l.	١.	_	i. i	
CEILING	١.,	1/2 -	1 ~	2-	5 -	
(10° FT)	< 1/2	< 1	< 2	<5	< 10	≩10
NC	+	+	+	7	24	11
50<80	0	+	0	+	+	+
35<50	0	+	+	+	1	1
20<35	+	+	+	1	13	6
10<20	+	+	1	3	18	3
6<10	+	+	1	3	3	+
3<6	+	1	1	2	1	+
1.5<3	+	+	+	+	+	0
0<1.5	1	+	+	0	0	0

November

4 Low Cloud Ceiling and Visibility

Ocean Station Vessel P

November

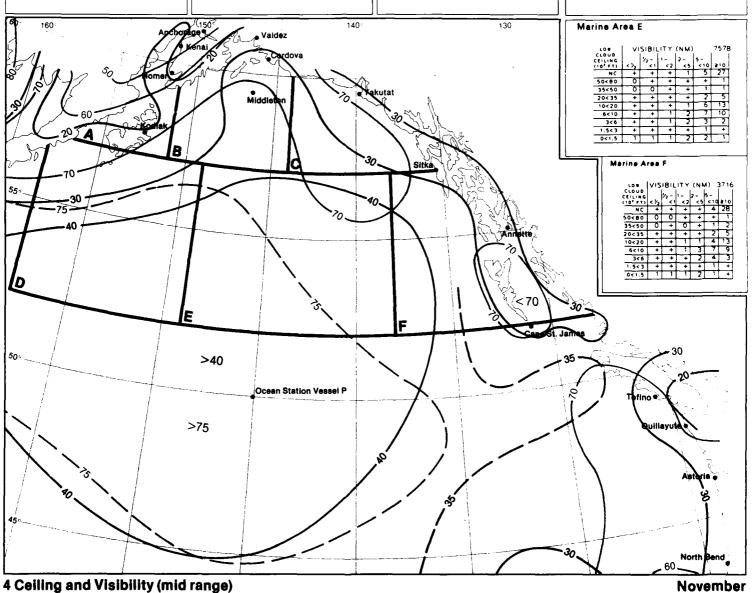
#### Marine Area A VISIBILITY (NM) 664 NC 0 0 0 50<80 0 0 0 35<50 0 0 0 + 6 37 0 20<35 0 10<20 0 0 1.5<3 0 0 0 0<1.5

Marine Ar	ea E	3				
LOW CLOUD CEILING		ıΒι∟ ½-	1-	(NN 2-	5-	709
(10° FT)	< 1/2	<1	<2	<5	<10	≩10
NC	+	0	+	+	4	29
50<80	0	+	+	0	+	1
35<50	0	+	0	+	1	2
20<35	+	+	+	+	3	11
10<20	+	+	+	1	5	13
6<10	+	+	+	1	5	10
3<6	0	+	+	1	3	2
1.5<3	+	+	+	+	1	+
0<1.5	1	+	1	2	1	+

LO#	VIS	BIL	ITY	(NA	1) '	1568
CEILING	[	1/2 -	1 –	2-	5-	ĺ
(10° FT)	<1/2	<1	<2	<5	<10	≥10
NC.	0	0	0	+	3	30
50<60	0	0	0	0	+	1
35<50	0	0	0	0	1	4
20<35	+	0	0	1	3	6
10<20	+	+	+	2	6	15
6<10	+	0	+	2	6	8
3<6	Ō	+	+	1	2	2
1.5<3	+	+	+	+	+	+
0<1.5	1	+	1	1	1	+

Marine Area C

LOW	l VIS	SIBIL	ITY.	(NN	1) 6	215
CLOUD	1	f. i	1	f i	1 1	1
CEILING	1	/2 -	1 -	2-	5-	
(10° FT)	< 1/2	< 1	<2	< 5	<10	≥10
NC	+	+	+	1	7	23
50<80	0	+	0	+	+	1
35<50	+	+	+	+	1.	2
20<35	+	+	+	1	4	8
10<20	+	+	+	2	7	9
6<10	+	+	1	3	6	6
3<6	+	+	+	2	2	1
1,5<3	+	+	+	+	1	+
0<1.5	2	1	1	7	1	+



#### 11-106

Kodiak						
٠٥ 🖢	J VIS	BIL	iT y	(NA	4) 1	701
CEILING CEILING	ļ	h	l,	l <sub>2 -</sub>	s -	1
(10° FT)	< 1/2	1	< 2	<5	<10	æ10
NC	+	+	+	1	12	36
50480	0	+	+	+	1	1
35<50	+	+	+	+	2	-2
204 35	+	+	+	1	8	- 6
10<20	+	+	+	4	8	2
6<10	+	+	1	3	2	+
3<6	+	+	$\neg$	2	1	+
1.543	+	+	+	+	+	+
0<1.5	1	T	$\neg$	1	+	+

LO#	VIS	BIL	ITY.	(NN	1)	92
CLOUD	(	l, (	(, '	L_	ا	(
(10° FT)	< 1/3	< 1	\ \ < 2\	< 5	<10	ء، د
	0		6		1	27
NC				+		3
50<80	0	0	0	+	+	4
35<50	Ō	0	0	+	1	11
20<35	0	0	+	1	4	17
10<20	Ō	0	+	- 2	4	9
6<10	Ō	0	Ö	,	+	1
3<6	0	+	+	,	1	Ĩ
1.5 \ 3	Ö	+	0	+	0	Õ
0<1.5	1	2	1	1	0	0

L0#	VIS	IBIL	ΙTΥ	(NA	<b>()</b>	24
CEILING		V2 -	1-	2 -	5-	
110 FT)	< 22	< !	< 2	< 5	<10	₹10
NÇ	1	0	0	_1	7	47
50<80	0	0	+	0	0	6
35<50	0	0	0	O	2	3
20<35	0	0	+	2	2	2
10<20	0	0	0	2	2	1
6<10	Ò	0	Ö	0	2	+
3<6	0	Ö	+	+	Ò	0
1.5< 3	0	0	0	+	Ō	0
0<1.5	4	4	3	2	1	0

Cordova

Cape St. James

North Bend

LOW.	VIS	VISIBILITY (NM) 135					
CLOUD	< 1/2	/ <sub>2</sub> - <1	1- <2	2- <5	5-	<u>}</u> 10	
(10° FT) NC	1 /2	+	+	1	3	50	
	<b>-</b> -	<u> </u>				1	
50<80	+	1	+	*			
35<50	Į O	+	+	+	L 1	4	
20<35	+	+	+	1	_2	_ 5	
10<20	+	+	+	1	2	4	
6<10	+	+	+	1	1	2	
3<6	+	+	+	1	2	1	
1.5<3	+	+	+	+	+	+	
0<1.5	2	1	1	1	+	+	

Valdez						
LO#	V15	iBiL	ITY	(NA	1)	828
CLOUD CEILING (10° FT)	< '/2	½- <1	1 - < 2	2 - <5	5 -	≥10
NC	+	+	+	1	9	28
50<80	+	0	0	+	6	8
35<50	0	0	+	+	3	1
20<35	Ó	0	0	1	3	+
10 € 20	0	Ö	+	5	4	+
6<10	0	+	+	2	2	+
3<6	0	0	+	3	3	0
1.5<3	0	+	+	1	1	0
0<1.5	5	6	3	3	+	0

LO#	VIS	iBIL.	17.3	LNN	40 1	124
CEILING		/2 -	1 -	2 -	5 -	
(10° FT)	< >2	< 1	<u> </u>	< 5	< 10	≥10
NC	_ ÷	+	+	+	7	24
50 <b0< td=""><td>0</td><td>0</td><td>0</td><td>0</td><td>1</td><td>1</td></b0<>	0	0	0	0	1	1
35<50	0	0	0	0	+	2
20<35	+	0	+	1	5	8
10<20	0	+	1	3	10	7
6<10	+	1	5	8	6	
3<6	+	+	1	1	+	0
1.5< 3	0	0	0	0	0	0
0<1.5	2	2	1	+	0	ō

Middleton

Annette

Astoria

. O <b>W</b>	Luc	iBiL	iΤΥ	(NIX	4\ 1°	954
CLOUD CEILING (10° FT)	د ۱۷  ولا>	1/2 - < 1	1-	2 - < 5	5 ~	برن 10≤
NC	+	+	+	1	2	37
50<80	+	+	+	0	+	3
35<50	+	+	+	+	2	5
20<35	+	+	+	2	10	9
10<20	+	+	1	6	8	2
6<10	+	+	+	1	1	+
3<6	0	0	+	+	+	+
1,5<3	0	0	0	+	+	0
0<1.5	1	2	2	1	+	+

Yakutat						
LO#	VIS	iBiL	ΙΤΥ	(NN	4) 15	5760
CLOUD CEILING	1	lv	ĺ1 – Í	2~	5 -	
(10° FT)	< 1/2	<1	< 2	< 5	<10	≥10
NC	+	+	+	1	6	26
50<80	+	+	+	+	+	2
35<50	0	+	+	+	1	2
20<35	+	+	+	1	6	-5
10<20	+	+	1	5	12	3
6<10	+	1	1	4	4	1
3<6	+	+	1	2	2	+
1.5<3	+	+	+	+	+	0
0<1.5	3	3	2	1	+	+

LOW	VIS	IBIL	ITY.	(NN	4)	248
CLOND	1	1/2 -	l. i	,	6	
(10° FT)	< 1/2	<1	<2	<5	< 10	≩10
NC	0	0	0	0	4	27
50 <b0< td=""><td>0</td><td>0</td><td>0</td><td>0</td><td>4</td><td>6</td></b0<>	0	0	0	0	4	6
35<50	Ö	0	0	+	7	6
20<35	0	0	+	6	10	4
10<20	0	0	+	8	4	0
6<10	0	0	0	2	0	0
3<6	0	0	0	Ö	0	Ö
1.5<3	0	0	0	0	0	0
0<1.5	1	4	2	4	0	0

L0#	VIS	BIL	IΤΥ	(NN	1) 15	539
CLOUD	1	10	١. ١	ls 1		
(10° FT)	< 1/2	/2 = <1	<2	< 5	<10	≥10
NC NC	+	+	+	1	2	30
50<80	0	0	0	0	+	2
35<50	0	0	+	+	1	3
20<35	+	+	+	1	4	10
10<20	0	+	1	5	11	11
6<10	0	+	1	4	4	2
3<6	+	+	1	2	1	+
1.5<3	0	+	+	+	+	0
0<1.5	1		1	1	+	+

LOW	VIS	IBIL	iT Y	(NN	1) 17	400
CLOUD CEILING (10° FT)	< 1/2	/ <sub>2</sub> - く1	1- <2	2- <5	5 - <10	≥10
NC	+	+	+	2	11	39
50<80	+	+	+	+	+	+
35<50	0	+	0	+	+	1
20<35	+	+	+	+	3	7
10<20	+	+	1	3	7	6
6<10	+	1	1	2	2	+
3<6	+	1	1	2	1	+
1.5<3	+	1	1	+	+	+
0<1.5	5	1	+	+	+	+

LO#	VIS	IBIL	IT Y	(NN	1) 13	87
CLOUD		ر - ولا	1-	2 -	5 -	
(10° FT)	< 1/2	< 1	< 2	< 5	<10	≩10
NC	+	+	7	1	10	36
50<80	+	+	+	+	1	2
35<50	+	Ō	+	+	2	2
20<35	+	+	+	1	10	5
10<20	+	1	1	3	6	1
6<10	1	3	2	2	1	+
3<6	1	2	1	+	+	0
1.5<3	+	+	+	+	0	0
0<1.5	2	1	+	+	0	0

Tofino

Quillayute						
	ما					
LOW	) VIS	iBiL	II Y	(NV	1) 4	1399
CLOUD		1.		_	.	1
CEILING	١. ١	/2-	1 -	2 ~ _	P	
(10° FT)	< 1/2	<1	< 2	< 5	<10	≩10
NC	7	+	+	2	17	10
50<80	+	0	0	+	1	+
35<50	+	+	+	+	3	T
20<35	+	+	+	2	13	1
10<20	+	1	1	8	13	+
6<10	+	3	3	4	2	+
3<6	1	2	1	2	1	+
1,5<3	+	+	+	+	+	0
0<1.5	3	1	+	+	+	0

)	360	1) 13	(NM	ΙTΥ	IBIL	VIS	LO W
		[_ [	_ 1	. 1	l. 1		CLOUD
_		ا ا	2- 1	1-	72 -	l i	CEILING
		<10	< 5	<2	< 1	< 1/2	(10° FT)
)	30	_ 7 ]	_ 1	+	+	_ 2_	NC
2	2	+	+	0	+	+	50<80
3	3	1	+	+	+	+	35<50
5	9	6	+	+	+	+	20<35
5	- 5	9	2	+	+	+	10<20
١	_ 1	5	4	1	+	+	6<10
+	+	1	3	2	1	+	3<6
F	+	+	+	+	+	+	1.5<3
5	0	+	+	+	+	1	0<1.5

	<b>.</b> .	
No	Data	Available

Ocean Sta	tion	Ves	801 F	•			
LO#	VIS	BIL	ITY.	(NN	1) 7	423	
CLOUD		İ	i	_	_	1 1	
CEILING	Ι.	1/2 -	1 -	ا ـ ۲	۶-	1	
(10° FT)	< 1/2	<1	< 2	< 5	<10	≥10	
NC	+	+	+	1	2 1	8	
50<80	+	0	0	0	+	+	
35<50	0	0	0	+	1	+	
20<35	+	+	+	1	12	6	
10<20	+	+	1	4	18	6	
6<10	+	+	1	3	4	2	
3<6	+	1	1	3	1	T	
1.5<3	+	+	+	+	+	Ò	
0<1.5	2	+	+	0	0	0	

December

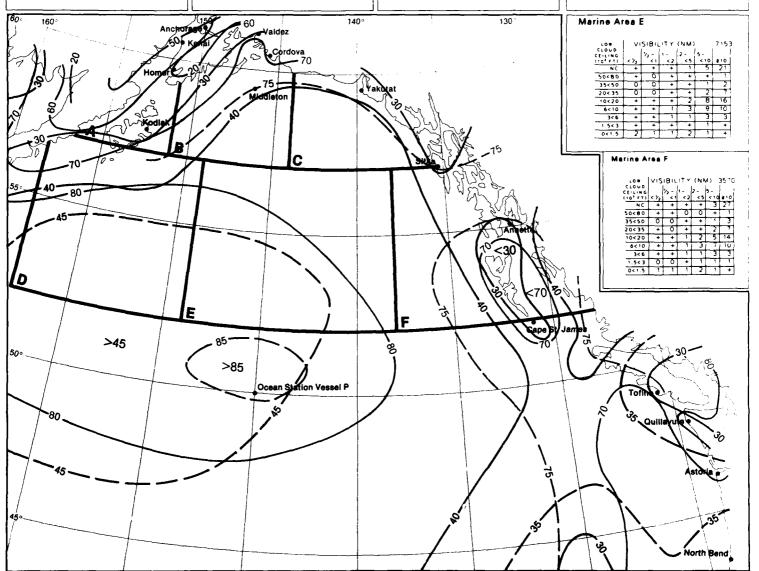
Marine A	••	4				
LOW CLOUD	VIS	١	JTY I.	(NN	1)  _	456 
CEILING (10° FT)	<1/2	/ <sub>2</sub> - <1	<2	<5	<10	≩10
NC	0	+	0	+	6	32
50<80	0	0	0	0	+	+
35:50	+	Ü	0	F	4	3
20<35	+	0	+	+	2	6
10<20	0	+	+	1	7	13
6<10	0	+	+	3	4	5
3<6	0	0	+	+	+	2
1.5<3	0	+	+	+	1	1
0<1.5	2	+	1	4	+	+

Marine Ar	• 8	В				
LOW CLOUD CEILING	VIS	3181L  / <sub>2</sub> -	T Y   -	(NN	1) 2	389
(10° FT)	< 1/2	7<1	<b>^</b> <2	໌ <5	<10	≩10
NC	0	+	ō	+	3	30
50<80	0	0	0	0	+	1
35<50	0	ن	0	1	1	2
20<35	+	0	0	+	2	8
10<20	+	1	1	1	4	13
6<10	+	+	1	2	6	10
3<6	+	+	+	1	3	3
1.5<3	+	+	+	+	1	1
0<1.5	1	1	1	2	1	+

LOW	VIS	BIL	ITY.	(NA	1) 1	42.
CEILING	l	/ <sub>2</sub> -	lı –	2-	5-	
(10° FT)	< 1/2	<1	<2	<5	<10	≩10
NC	0	Ō,	0	+	2	26
50<80	0	. 0	+	0	+	1
35<50	0	ী		+		2
20<35	0	0	0	+	2	6
10<20	+	+	1	1	7	13
6<10	+	+	1	3	8	11
3<6	0	+	+	1	3	4
1.5<3	0	+	+	+	1	1
0<1.5	1	1	1	2	1	1

Marine Area C

Marine Area D										
CEILING CEILING		1/2 -	۱ –	2 -	5-	206				
(10° FT)	< 1/2	<1	<2	<5		≥10				
NC	+	+	+	_ 1	6	1/				
50<80	+	0	+	0	1	1				
35<50	+	+	+	+	1 📑	_				
20<35	+	+	+	2	4	9				
10<20	+	+	1	3	9	12				
6<10	+	+	1	3	8	8				
3<6	+	+	1	2	2	2				
1.5<3	+	+	+	+	+	+				
0<1.5	2	1	2	2	1	+				



4 Celling and Visibility (mid range)

December

## Map 5. Visibility thresholds

TABLE - Percent frequency of visibility (nautical miles).

Albers Equal—Area Conic Projection

## Graphs: Visibility thresholds

		Percent frequency of visibility of various ranges for designated marine areas and coastal stations.										
VISIBILITY (NM)	<u>%</u>	•										
<.5	1.2											
.5 <1	2.9	2.2 (2.9% of the observed visibilities were <1 but ≥1/2 nautical mile. Other percentages can b										
1<2	1.2	similarly interpreted.)										
2 < 5	3.2		1 -	١ .	i o	1 -	ا ما	1				
5 < 10	30.7	Nautical miles	<u> </u>	1	2	5	10					
≥10	60.8	Kilometers	1	2	4	10	20					
N=	342	N = Observa	tion co	unt.								

Visibility is a term that denotes the greatest distance from an observer that an object of known characteristics can be seen and identified with the unaided eye. When the visibility is not the same in all directions, the greatest distance common to one-half or more of the horizon circle is determined. Visibilities are difficult to measure at sea because of the lack of reference points. Climatically, many low visibility observations probably are missed because the observer is too busy with other duties (this is a form of fair weather bias). Also, some observers seem to report reduced visibilities at night because of darkness, though this tendency has abated in recent years. However, the coarseness of the visibility intervals (see code table) tends to minimize the problem, thereby permitting the summarized data to be relatively consistent. Visibilities greater than 25 nautical miles should be interpreted cautiously because the earth's curvature makes it impossible to see that distance horizontally from the bridge of most ships.

	AISIRIFILA (MI	MO Code, 1982)	
Code	Visibility (vv)	Visibility (vv)	Code
figs.	in m/km	in yd./naut. mi.	figs
90	less than 50 m	less than 55 yd	
91	50 but less than 200 m	55 but less than 220 yd	
92	200 but less than 500 m	220 but less than 550 yd	
93	500 but less than 1000 m	550 but less than 2 n. mi	
94	1 but less than 2 km	1/2 but less than 1 n. m	
95	2 but less than 4 km	1 but less than 2 n. m	
96		2 but less than 5 n. m	
97		5 but less than 11 n. m	
98 99	20 but less than 50 km 50 km or more	11 but less than 27 n. m. 27 n. mi. or more	
	e visibility ranges correspo as follows:	nding to various weather t	ypes
90 91	Heavy snow, heavy dri	77 P	90
	)	Fog. thick haze	92
92	Moderate snow, moder	rate drizzle	6 93
93			( 94
93 94	) Heavy rain		
93 94 95		Mist. haze	95
93 94 95 96	Moderate rain		95
93 94	Moderate rain	Mist, haze ght snow, light drizzle	95

#### 11-110

Kodiak		Homer		Kenai		Anchorage	
VISIBILITY (NM)	<b>%</b>	VISIBILITY (NM)	%	VISIBILITY (NM)	<b>7</b> .	VISIBILITY (NM)	3
<.5	2.7	<.5	0.7	<.5	2.8	<.5	5.5
.5 < 1	3.1	.5 <1	1.7	5 <1	3.4	.5 <1	2.2
1<2	3.8	1<2	1.9	1<2	2.6	1<2	2.4
2 < 5	12.7	2 < 5	4.2	2 < 5	4.2	2 < 5	4.3
5 <10	29.6	5 < 10	11.5	5 < 10	14.7	5 < 10	9.2
≥10	48.1	≥10	80.0	≥10	72.3	≥10	76.3
N=	25207	N=	18885	N=	22337	N=	23807
Valdez		Middleton		Cordova		Yekutet	
VISIBILITY (NM)	<u>z</u>	VISIBILITY (NM)	<u>3</u>	VISIBILITY (NM)	7	VISIB: To (NM)	2
<.5	2.5	<.5	3.6	<.5	2.1	<.5	4.0
.5 <1	4.3	.5 <1	4.0	.5 <1	2.5	.5 <1	4,7
1<2	3.0	1<2	6.2	1<2	3.3	1<2	5.7
2 < 5	13.8	2 <5	12.1	2 <5	12.6	2 <5	12.4
5 < 10	25.4	5 < 10	25.1	5 < 10	32.3	5 <10	27.6
≧10	51.0	<u> </u>   ≥10	49.0	10 ≥10	47.2	≥10	45.6
NΞ	5848	N=	10999	N=	25304	N=	1909.
Sitke		Annette		Cape St. James		Tofino	
VISIBILITY (NM)	3	VISIBILITY (NM)	<u>z</u>	VISIBILITY (NM)	3	VISIBILITY (NM)	3
<.5	1.0	<.5	1.2	<.5	7.1	<.5	5.4
.5 <1	1.9	.5 <1	1.7	.5 <1	3.8	.5 <1	7.3
1<2	2.7	1<2	4.2	1<2	4.3	1<2	4
2 < 5	13.1	2 < 5	11.8	2 < 5	10.1	2 < 5	10.2
5 < 10	37.5	5 < 10	23.8	5 < 10	25.8	5 < 10	29. '
≧10	43.7	≧10	57.3	≥10	48.9	≥10	43.2
N=	22583	N=	18351	N=	20689	N=	1684 1
		) L		\			
Duillayute		Astoria		North Bend		Ocean Station Vessel	P
VISIBILITY (NM)	<u>3</u>	VISIBILITY (NM)	<u>z</u>	North Bend  VISIBILITY (NM)	3	VISIBILITY (NM)	P 3
	³ 6.5		<u>3</u> 2.1		- (	VISIBILITY (NM)	7
VISIBILITY (NM)		VISIBILITY (NM)		VISIBILITY (NM)	2.5 1.4	VISIBILITY (NM)	3 4.8
VISIBILITY (NM)	6.5	VISIBILITY (NM)	2.1	VISIBILITY (NM)  <.5 .5 <1	2.5 1.4	<u>visibility (nm)</u> <.5 .5 <1	3 4.8 2.6
VISIBILITY (NM) <.5 .5 <1 1 < 2	6.5 9.6 5.2	visibility (NM) <.5 .5 <1 1 < 2	2.1 2.1 4.1	VISIBILITY (NM)  <.5  .5 <1  1 < 2	2.5 1.4 4.2	VISIBILITY (NM) <.5 .5 <1 1 < 2	3 4.8 2.6 4.5
<.5 .5 <1 1 < 2 2 < 5	6.5 9.6 5.2 14.4	VISIBILITY (NM)  <.5  .5 <1  1 < 2 2 < 5	2.1 2.1 4.1 11.6	VISIBILITY (NM) <.5 .5 <1 1 < 2 2 < 5	2.5 1.4 4.2 11.7	VISIBILITY (NM) <.5 .5 < 1 1 < 2 2 < 5	4.8 2.6 4.5 12.6
<ul> <li>&lt;.5</li> <li>.5 &lt;1</li> <li>1 &lt;2</li> <li>2 &lt;5</li> <li>5 &lt;10</li> </ul>	6.5 9.6 5.2 14.4 49.8	VISIBILITY (NM)  <.5  .5 <1  1 <2  2 <5  5 <10	2.1 2.1 4.1 11.6 32.2	VISIBILITY (NM)  <.5  .5 < 1  1 < 2  2 < 5  5 < 10	2.5 1.4 4.2 11.7 46.6	VISIBILITY (NM)  <.5 .5 < 1 1 < 2 2 < 5 5 < 10	4.8 2.6 4.5 12.6 58.1
<.5 .5 <1 1 <2 2 <5	6.5 9.6 5.2 14.4	VISIBILITY (NM)  <.5  .5 <1  1 < 2 2 < 5	2.1 2.1 4.1 11.6	VISIBILITY (NM) <.5 .5 <1 1 < 2 2 < 5	2.5 1.4 4.2 11.7	VISIBILITY (NM) <.5 .5 < 1 1 < 2 2 < 5	4.8 2.6 4.5 12.6

January

	Meting Ales A		Mattite Vies D		MIETITIO AT		11	Maille Vies D	
	VISIBILITY (NM)	<u>z</u>	VISIBILITY (NM)	ž.	VISIBILI.	TY (NM)	<u>z</u>	VISIBILITY (NM)	<u> </u>
1	<.5	1.9	<.5	2.1	<.5		1.7	<.5	6.4
	.5 <1	1.4	.5 <1	1.7	.5 <1		1.7	.5 <1	4.2
	1<2	3.3	1<2	3.2	1<2		3.8	1<2	6.1
	2 <5	8.6	2 <5	9.0	2 < 5		9.0	2 <5	13.9
	5 <10	16.6	5 < 10	25.5	5 < 10		27.4	5 <10	30.9
	≧10	68.2	≥10	58.5	≥10		56.4	≥10	38.5
	N=	783	N=	2624	N=		1791	N=	7024
					][				
1	60 160		/(150	140	1	1	30	Marine Area E	
		- /5	The soling					VISIBILITY (NM)	3
	51	L-27	- 3,000				.	<.5	4.9
	" MR	I VV (NM)	7	<del></del>			]]	.5 <1 1 < 2	3,2 5.4
	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	1 < 5	VV (NM)	VV (NM) %	VV (NM): 3		[]	2 < 5	12.6
		. 5 2.1	<.5 2.4	<.5 2.4	<.5 2.3	<b>.</b>		5 <10	32.4
-	1	1<2 3.2	1.5 <1 1.8	~	.5 <1 1.8	City is	- 11	≥10 N-	41.4
	Man !	2 15 9 9 1	1<2 3.6	1<2 3.1	1<2 4.0	1 1/2		N=	8872
	•	``U 20 p.	10.0	2 < 5 10.4	2<5 9.9			Marine Area F	
		. 01.81		<10 28.1	5 < 10 29.9	1/2/2001		VISIBILITY (NW)	<b>š</b>
	55: \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	2020	A/=	≥10 54.2	≩10 52.1	L MAC	Ä	<.5	2.3
١	7-		N= 2478	N= 3120	N= 1460	1 30	1/1	.5 <1 1 < 2	2.5 4.8
	VV	NM)				DJ2	77	2 < 5	12.1
	<.5	_	V (NM) 3 V	/V (NM) %	VV (NM) %	VV (NM)	7.	5 10	28.3
	.5 <1	/.8 ] .	<.5 6 3   -		<.5 3.6	1 ~	2.8	C. <b>≟</b> =/	50.0 4312
	1<2		<1 3.6 5	<.5 5.6 <1 3.7	.5 <1 2.1		2.4	L	
	/ 2 < 5	7.2 1. 14.5 2.	$\binom{2}{5}$ 5 1 1	<2 6.5	1<2 4.	4 1<2	4.6	m	
	5 < 10	30 - 1 -	<5 12.6 2	2 < 5 13.0	2<5 11.	8 2 < 5	12.0	<u>\</u>	
	≥10 N=	33.3	48.6 5	<10 34.2	5 < 10 30.	2 5<10	29.5	جي ساء	
	50=	4487 N=	2J.0   2	10 37.0	≥10 47.	1	4302	MINE TO	3.
		/ ''-	10741 N	l= 4877 (	N= 629	4 N=	4502	-12	
	VV (NM)			!				(MM) %	1
	<.5	Z VV (NA	u) 3   vv	(1110)	(114)	VV (NM	2	VV (NM) 3.0	
	.5 <1	7.7		(NM) ½	VV (NM) 2	.9 <.5	3.6	., 3. <sup>∨</sup> 1	
	1 1<2	- 3 <1	3.6 .5			.3 .5<1	2.3		
		4 \ `~	6.6			1 1 < 2	3.0	1 , 9.0	1 6
			12.7 2			8 1 2 <5	, 10.5	1 .40 70.	
	38	.0	30.6 5 <1			9 5 < 10	31./	50.0 ≥10 7610	1
	N= 37	.0 ≥10 12 N=	39.9 ≥10			.0 ∤ ≥10	48.3	N= 7610	1
ı		1 14=	3958 N=		_	13	8933	1	
	!	-				•			i i

Marine Area C

5 Visibility Thresholds

Marine Area A

January

# 11-112

Kodiek	<del></del>	Homer		Kenai		Anchorage	
VISIBILITY (NM)	<u>z</u>	VISIBILITY (NM)	3	VISIBILITY (NM)	3	VISIBILITY (NM)	<u>3</u>
<.5	3.0	<.5	1.7	<.5	2.4	<.5	3.4
.5 <1	3.5	.5 <1	1.8	.5 <1	3.1	.5 <1	2.6
1<2	4.3	1<2	2.7	1<2	2.9	1<2	2.7
2 < 5	12.7	2 < 5	4.9	2 <5	4.2	2 < 5	4.3
5 < 10	29.2	5 < 10	11.6	5 < 10	12.7	5 < 10	8.3
≥10	47.3	≥10	77.4	≥10	74.7	≥10	78.8
N=	23039	N=	16569	N=	20172	N=	21696
Valdez		Middleton		Cordova		Yakutat	
VISIBILITY (NM)	3	VISIBILITY (NM)	<u> 3</u>	VISIBILITY (NM)	<u>3</u>	VISIBILITY (NM)	3.
<.5	4.0	<.5	1.9	<.5	1.9	<.5	4.5
.5 <1	5.5	.5 <1	2.5	.5 <1	3.2	.5 <1	6.1
1<2	4.2	1<2	4.3	1<2	4.4	1<2	6.2
2 < 5	11.5	2 < 5	10.9	2 < 5	13.0	2 <5	12.8
5 < 10	22.2	5 < 10	25.9	5 <10	30.7	5 < 10	28.1
≥10	52.6	≥10	54.5	≥10	46.8	≥10	42.3
N=	5686	N=	10007	N=	22885	N=	17403
Sitke		Annette		Cape St. James		Tofina	
VISIBILITY (NM)	<u> </u>	VISIBILITY (NM)	<u>z</u> .	VISIBILITY (NM)	<u>z</u>	VISIBILITY (NM)	3
<.5	1.2	<.5	1.0	<.5	6.2	<.5	4.
.5 <1	1.4	.5 <1	1.8	.5 <1	3.4	.5 <1	6.6
1<2	1.7	1<2	3.1	1<2	4.4	1<2	4.6
2 < 5	11.8	2 <5	12.6	2 < 5	10.5	2 < 5	10.8
5 < 10	41.2	5 <10	24.8	5 < 10	26.4	5 < 10	28.5
≥10	42.8	≧10	56.7	≥10	49.1	≥10	45.4
N=	20341	N=	16682	N=	18831	N=	15349
Ouilleyute		Astoris		North Bend		Ocean Station Vesse	I P
VISIBILITY (NM)	<u>3</u>	VISIBILITY (NM)	<u>%</u>	VISIBILITY (NM)	2	VISIBILITY (NM)	3
<.5	4.3	<.5	1.8	<.5	2.9	<.5	4.4
<b>.</b> 5 <1	8.3	.5 <1	1.5	.5 <1	1.5	.5 <1	2.8
1<2	5.4	1<2	2.7	1<2	4.5	1<2	4.7
2 < 5	17.5	2 <5	9.3	2 < 5	11.4	2 < 5	13.4
5 < 10	48.8	5 < 10	32.6	5 < 10	46.5	5 < 10	55.5
≥10	15.7	≥10	52.2	≧10	33.3	≧10	19.3
N=	6560	N=	16228	N=	16736	N=	7117
February		J L		J L		5 Visibility	Thresholds

							-113
Marine Area A		Marine Area B		Marine Area C		Marine Area D	
VISIBILITY (NM)	3	VISIBILITY (NM)	<u>z</u>	VISIBILITY (NM	2 3	VISIBILITY (NM)	<u>z</u>
<.5	1.7	<.5	2.1	<.5	3.5	<.5	6.0
.5 <1	1.8	.5 <1	2.2	.5 <1	1.8	.5 <1	3.3
1<2	3.2	1<2	3.7	1<2	3.9	1<2	5.6
2 <5	6.1	2 <5	9.4	2 <5	8.9	2 <5	12.7
5 <10	18.8	5 <10	25.5	5 < 10	22.8	5 <10	29.9
≥10	68.5	≧10	57.2	≥10	59.0	≥10	42.6
N=	1170	N=	2808	N=	1707	N=	7081
<b>6</b> 0 160		T <sub>150</sub>	140		13')	Marine Area E	
100			140		'3'	VISIBILITY (NM)	*
Regard .	r-1/_					<.5	4.8
17 na -	VV (NM)	7 2	<del></del>			.5 <1	2.7
1 / 7 .	< 5	VV (NM) Z VV	(NM) z ly	v (NM) % 1		1<2 2<5	4.5 11.0
1 / / / j	.5 <1 2.1	<.5 2.2	.5 3.0	<.5 2.5		5 < 10	30.6
I have the	155 301	.5 <1 1.8 1 5.	•	5<1 2.1		≥10	46.4
	- 13 - 1	<sup>1</sup> <2 3.5 1<		1<2 3.6		N=	8565
	S10 21 3 1	2 < 5 8.6 2 <		2 <5 9.9 🙌	, L	Marine Area F	
1 .	, 02.3		0 26.0 5			VISIBILITY (NM)	3
55 N	750-	. 3/.2   ≥10	57.2	≥10 58.3	unin italia Liinka ita	<.5	2.2
<b>†</b> -		N= 2663 N=	2939	N= 1260 I		.5 <1 1 < ?	2.1 4.3
vva	VM) T -		!_		7	2 <5	9.8
<.5	2 V	(NM) Z VV	1M) %	VV (NM) %	V (NM) Z	5 < 10	27.4
.5 <1	7.31	6.5	·	<.5 3.6	<.5 2.7	≥10 N=	54 . 2 3989
1 1 1 2	6 0 1	<1 3.2 1.5 c	4		5<1 1.5		
2 < 5	13 ~ 1	J- 1 - 1 < 2		1<2 4.6	1<2 4.2	¥	
1 5 <10 1 ≥10	33.5 ( 5)	2.7 . 23:		2 < 5 11.6	2 < 5 10.4	N.	
1 A.	35.3	' - O 1 3 < K		5 < 10 29 . 3			
50	4391 N=	20.3 <b>≥</b> ≥10	40.2	≥10 48.6	4076	· · · · · · · · · · · · · · · · · · ·	
	!	10297 N=	4767	N= 6051 I	N= 4070		
VV (NM)	3 / VV (ALL)			· +		VV (NM) 3.6	
<.5 .5<1	5.9	VV (NN	2	VV (NM) %	VV (NM) %		
1 .5 <1	2.9 .5 <1	6.2 <.5	6.6	<u>vv (NM)</u>	<.5 3.6	$\frac{2.5}{1.5}$	1
2<5 15	1<2	2.9 .5 <1		.5 <1 3.7	.5 <1 2.4 1 1 <2 3.4	1/2 3.4	`\
1 5 < 10 33	.0 2 <5	2.9   .5 <1 5.2   1 <2 12.5   2 <5	5.7	1<2 4.8	1 2/5 10.3	1 1 < 2 9.4 1 2 < 5 31.6	1
! ≥10 33 39	.0 5 <10	12.5 2 <5 31.7 5 <10	13.4	2 < 5 11.3	5 210 31.3	50.0	
N = 39	≥10	41.4 ≥10		5 <10 30.1 ≥10 45.6	$\frac{1}{210}$ 49.0	7688	1
45.	N=	3904 N=	40.6 4337	≥10 45.6 N= 5674	N= 8487	N= /00	
		,,_	+33/	14- 2014			
	_						
L					<u> </u>		

5 Visibility Thresholds

(1-114							
Kodiek		Homer		Kensi		Anchorage	
VISIBILITY (NM)	*	VISIBILITY (NM)	3	VISIBILITY (NM)	3	VISIBILITY (NM)	<b>3</b>
<.5	2.3	<.5	0.7	<.5	1.2	<.5	0.7
.5 <1	2.7	.5 <1	1.4	.5 <1	2.6	.5 <1	1.3
1<2	3.3	1<2	1.8	1<2	2.4	1<2	2.0
2 < 5	10.1	2 <5	3.6	2 < 5	3.8	2 < 5	2.3
5 < 10	28.1	5 < 10	10.3	5 < 10	9.8	5 < 10	5.5
≥10	53.4	<u>≥</u> 1C	82.2	≥10	80.2	≥10	87.E
N=	24781	N=	18803	N=	22132	N=	23764
Valdez		Middleton		Cordova		Yakutat	
VISIBILITY (NM)	7.	VISIBILITY (NM)	3	VISIBILITY (NM)	<u> </u>	VISIBILITY (NM)	7.
<.5	2.9	<.5	1.7	<.5	1.5	<.5	4.'
.5 <1	5.5	.5 <1	2.8	.5 <1	2.6	.5 <1	5.4
1<2	3.2	1<2	4.7	1<2	3.5	1<2	5.5
2 < 5	10.3	2 <5	11.1	2 < 5	11.7	2 < 5	11.6
5 < 10	20.7	5 < 10	22.4	5 < 10	28.0	5 < 10	24.0
≥10	57.5	≥10	57.4	≥10	52.8	≥10	49.4
N=	6170	N=	11111	N=	25 174	N=	19085
Sitke		Annette		Cape St. James		Tofino	
VISIBILITY (NM)	<u>z</u>	VISIBILITY (NM)	<u>z</u>	VISIBILITY (NM)	3	VISIBILITY (NM)	3
<.5	0.7	<.5	0.8	<.5	4.3	<.5	3.4
.5 <1	1.1	.5 <1	1.4	.5 <1	2.6	.5 <1	4.5
1<2	1.8	1<2	2.7	1<2	2.7	1<2	3.5
2 < 5	11.8	2 < 5	9.6	2 < 5	7.1	2 < 5	8.8
5 < 10	35.9	5 < 10	20.1	5 < 10	23.7	5 < 10	25.9
≥10	48.5	≧10	65.5	≧10	59.5	≥10	54.0
N=	22418	N=	18449	N=	20786	N=	16837
Quilleyute		Astoria		North Bend		Ocern Station Vesse	I P
VISIBILITY (NM)	<u> 3</u>	VISIBILITY (NM)	<b>%</b>	VISIBILITY (NM)	<b>%</b>	VISIBILITY (NM)	<u>?</u>
<.5	2.3	<.5	1.2	<.5	1.9	<.5	4.5
.5 <1	4.9	.5 <1	0.9	.5 <1	0.9	.5 <1	3.3
1<2	4.3	1<2	1.8	1<2	3.4	1<2	4.8
2 < 5	15.3	2 <5	6.6	2 < 5	9.6	2 < 5	11.3
5 < 10	54.0	5 < 10	30.9	5 < 10	44.3	5 < 10	56.1
≥10	19.2	≧10	58.7	≧10	39.9	≥10	20.1
N=	7181	N=	17795	N=	18344	N=	7764
March		J L	<del></del>	] [		5 Visibility	Thresholds

VISIBILITY (NM)  <.5  .5 < 1  1.5  .5 < 1  1.2  1 < 2  2 < 5  2 < 5  5 < 10  ≥10  64.7	VISIBILITY (NM)  <.5 .5 <1 1 <2 2 <5 5 <10 ≥10	1.2 0.9 2.9 7.2 22.3 65.6	VISIBILITY (NM)  <.5  .5 <1  1 <2  2 <5  5 <10  ≥10	2.2 1.5 2.9 6.8 20.7 65.9	VISIBILITY (NM)  <.5 .5 <1 1 <2 2 <5 5 <10 ≥10	4.9 3.4 5.4 11.6 31.0 43.6
N= 1138	N=  M150  N SU GAY  VV (NM)	2923	N=	2015	Marine Area E  VISIBILITY (NM)  <.5 .5 <1 1 < 2	7998 3.3 2.4 4.0
5.5 1.9 .5 <1 1.3 1 <2 3.0 2 <5 8.2 5 <10 24.0 ≥10 61.5 N= 2478	2 vv. (	5 1.6 < 1 1.2 .5 < 2 2.7 1 < 5 6.9 2 <	1.7 22 2.4 55 7.8 10 21.2		2 < 5 5 < 10 ≥ 10 N=    Marine Area F	9.7 29.5 51.1 9554
5<1 5.6 1<2 4.2 .5 2<5 6.3 1. 5<10 32.9 5	5.1 1<2 5.1 1<2 11.9 2<5	4.4 < 3.2 .5 4.7 1	(NM) ½ VV (N (.5 3.2 <.5 < .1 2.2 .5 < <2 3.0 1 < <5 < 8.0 2 <	5 1.3 1 1.9 2 2.2 1 5 7.3 1	1 < 2 2 < 5 5 < 10 ≥10 N=	3.0 7.9 25.1 61.1 5287
$N = \begin{array}{ccccccccccccccccccccccccccccccccccc$	27.3 ≥10 11268 N= 0 27.3 ≥10 1268 N=	43.1 ≥ 5354 N  z vv 5.2 <	3.5 4.2	0 59.9 = 5205 (NM) 3 <.5 3.0	VV (NM) 2.9 <.5 1.9 .5 < 1 2.2 1.5 < 2.7	
2 < 5	3.0 .5 <1 5.4 1<2 11.5 2 <5 29.7 5 <10 43.5 ≥10 4240 N=	4.8 1 10.8 2 32.5 5 < 43.3 ≥	<2 3.8 1 <5 9.5 2 <10 31.3 5 10 49.1	<1 1.8 <2 2.9 2<5 7.8 <10 26.9 ≥10 57.6 N= 9161	1 < 2 2 < 5 5 < 10 ≥ 10 8 5 6 5 8 5 6 5	
5 Visibility Thresholds						March

Marine Area C

5 Visibility Thresholds

Marine Area A

II-116						, <del>,</del>	
Kodiek		Homer		Kenai		Anchorage	
VISIBILITY (NM)	<u>z</u>	VISIBILITY (NM)	3	VISIBILITY (NM)	<u>3</u>	VISIBILITY (NM)	<u>3</u>
<.5	0.9	<.5	0.7	<.5	0.9	<.5	0.6
.5 <1	1.9	.5 <1	0.9	.5 <1	2.2	.5 <1	0.9
1<2	2.5	1<2	1.5	1<2	1.8	1<2	1.9
2 < 5	8.7	2 <5	3.4	2 < 5	2.8	2 < 5	2.5
5 < 10	23.6	5 < 10	9.1	5 < 10	7.6	5 < 10	5.5
≥10	62.4	≥10	84.3	≧10	84.8	≥10	88.7
N=	23995	N=	18269	N=	21424	N=	23039
Veidez		Middleton		Cordova		Yakutat	
VISIBILITY (NM)	3	VISIBILITY (NM)	<u>%</u>	VISIBILITY (NM)	<u>z</u>	VISIBILITY (NM)	<b>3</b>
<.5	1.7	<.5	2.1	<.5	1.0	<.5	2.3
.5 <1	3.1	.5 <1	2.0	.5 <1	1.6	.5 <1	3.0
1<2	2.7	1<2	3.4	1<2	2.3	1<2	4.0
2 < 5	10.8	2 <5	10.5	2 <5	10.1	2 < 5	11.4
5 < 10	21.5	5 < 10	23.0	5 < 10	27.4	5 < 10	25.2
≧10	60.2	∐ ≧10	59.0	<u>}</u> 10	57.6	≥10	54.0
N=	5821	N=	10796	N=	24336	N=	18478
Sitke		Annette		Cape St. James		Tofino	
VISIBILITY (NM)	7.	VISIBILITY (NM)	7,	VISIBILITY (NM)	3	VISIBILITY (NM)	7.
<.5	0.3	<.5	0.2	<.5	4.0	<.5	2.2
.5 <1	0.6	.5 <1	0.4	.5 <1	1.8	.5 <1	3.1
1<2	0.8	1<2	1.3	1<2	2.3	1<2	2.8
2 < 5	8.1	2 <5	7.4	2 < 5	6.6	2 < 5	7.4
5 < 10	35.4	5 < 10	20.6	5 < 10	22.8	5 < 10	24.5
≥10	54.8	≥10	70.2	≥10	62.4	≥10	60.0
N=	21628	N=	17921	N=	20124	N=	15732
Quilleyute		Astoria		North Bend		Ocean Station Vessel	I P
VISIBILITY (NM)	7.	VISIBILITY (NM)	<b>%</b>	VISIBILITY (NM)	3	VISIBILITY (NM)	<u>3</u>
<.5	2.6	<.5	1.1	<.5	2.0	<.5	3.8
.5 <1	2.4	.5 <1	0.7	.5 <1	0.9	.5 <1	2.0
1<2	2.7	1<2	1.6	1<2	2.8	1<2	3.3
2 < 5	10.6	2 < 5	5.1	2 < 5	7.5	2 < 5	9.9
5 < 10	57.2	5 < 10	25.3	5 < 10	40.5	5 < 10	58.7
≥10	24.6	≥10	66.3	≥10	46.2	≥10	22.2
N=	6926	N=	17694	N=	17759	N=	7587
1		11		11		11	

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Marine Area D

VISIBILITY (NM)

<.5 1.5 .5 <1 1.6 1 <2 2.1 2 <5 6.7 5 <10 22.8 ≥10 65.3 N= 1166	<.5 .5 <1 1 <2 2 <5 5 <10 ≧10 N=	1.4 1.0 2.5 6.5 21.1 67.5 3040	<.5 .5 <1 1 <2 2 <5 5 <10 ≥10 N=	1.1 0.9 2.0 6.1 23.1 66.8 2106	<.5 .5 <1 1 <2 2 <5 5 <10 ≥10 N=	4.8 2.7 4.2 9.6 28.9 49.8 8102
60 160	(150 S. S. S.	140		130	Marine Area E	3
VV (NM) 3 <.5 2.3 .5 <1 1.6 1 <2 2.4 2 <5 7.5	<.5   1.9   < .5 <1   1.1   .5 < 1 <2   2.8   1 <	.5 1.5 « (1 1.0 .5	(NM) 3 (.5 1.0 (1 0.8 (2 1.9		<.5 .5 <1 1 <2 2 <5 5 <10 ≥10 N=	3.0 2.1 3.3 7.8 28.7 55.0 9475
23.5 ≥10 62.8 N= 2433	≥10 66.0 ≥10 N= 2895 N=	5 6.3 2 0 24.1 5 < 65.3 ≥ 3567 N	<5 6.0 10 10 10 10 10 10 10 10 10 10 10 10 10	VV (NM) 2	Marine Area F   VISIBILITY (NM)   <.5   .5 <1   1 <2   2 <5   5 <10	1.2 1.7 2.3 6.4 26.6
1<2 3.3 5	<ul> <li>4.8</li> <li>2.8</li> <li>3.9</li> <li>3.9</li> <li>46.1</li> <li>32.5</li> <li>≥10</li> </ul>	4.1 2.9 4.1 9.8 2 32.4 5	<.5 2.7 6<1 1.8 1<2 3.1 2<5 7.3 <10 27.5 ≥10 57.5	<.5 1.7 .5 <1 2.1 1 <2 2.5 2 <5 7.5 5 <10 26.8 ≥10 59.3	≥10 N=	61.7 4835
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	11248 N= $ \begin{array}{c cccc} 1 & 2 & & & & \\ \hline 5.0 & <.5 & \\ 3.0 & .5 < 1 \\ 4.0 & 1 < 2 \\ 10.5 & 2 < 5 \\ 27.2 & 5 < 10 \\ 50.3 & \geq 10 \end{array} $	5779 4.9 2.7 4.0 9.6 31.1 5	N= 7335  V (NM)	N= 5088 VV (NM)	5<10 26.0 5<10 62.9 ≥10 7925	
	4438 N=	4204	N= 5689	N= 9089		

Marine Area C

VISIBILITY (NM)

Marine Area B

VISIBILITY (NM)

Merine Area A

VISIBILITY (NM)

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Kodiek		Homer		Kenei		Anchorage	
VISIBILITY (NM)	<u>z</u>	VISIBILITY (NM)	<u>%</u>	VISIBILITY (NM)	<u>z</u>	VISIBILITY (NM)	<u>3</u> .
<.5	1.2	<.5	0.3	<.5	0.3	<.5	0.1
.5 <1	1.6	.5 <1	0.2	.5 <1	0.2	.5 <1	0.0
1<2	3.1	1<2	0.3	1<2	0.2	1<2	0.1
2 < 5	10.7	2 <5	0.5	2 < 5	0.7	2 < 5	0.4
5 < 10	23.5	5 < 10	4.3	5 < 10	3.9	5 < 10	4.3
≥10	59.9	<u> </u>   ≥10	94.4	≥10	94.7	≥10	95.1
N=	24064	N=	18173	N=	21373	N=	23074
Veldez		Middleton		Cordova		Yakutat	
V41002		middleton					
VISIBILITY (NM)	<b>%</b>	VISIBILITY (NM)	2	VISIBILITY (NM)	2	VISIBILITY (NM)	*
<.5	0.3	<.5	2.7	<.5	0.6	<.5	1.6
.5 <1	0.6	.5 <1	2.4	.5 <1	0.4	.5 <1	1.3
1<2	0.2	1<2	3.3	1<2	1.0	1<2	2.5
2 < 5	3.0	2 <5	10.4	2 <5	6.9	2 < 5	8.9
5 < 10	24.5	5 < 10	19.1	5 < 10	28.5	5 <10	24.6
≥10	71.4	≥10	62.1	≥10	62.7	≧10	61.3
N=	5248	N=	11160	N=	24466	N=	18157
Sitka		Annette		Cape St. James		Tofino	
		<b>     </b>					
VISIBILITY (NM)	<u>3</u>	VISIBILITY (NM)	2	VISIBILITY (NM)	3	VISIBILITY (NM)	<u> </u>
VISIBILITY (NM)	3 0.1	VISIBILITY (NM)	0.4	VISIBILITY (NM)	<u>*</u> 5.8	VISIBILITY (NM)	2.4
			_			]	
<.5	0.1	<.5	0.4	<.5	5.8	<.5	2.4
<.5 .5 <1	0.1 0.4	<.5 .5 <1	0.4	<.5 .5 <1	5.8 1.8	<.5 .5 <1	2.4 2.4
<.5 .5 <1 1 <2	0.1 0.4 0.5	<.5 .5 <1 1 <2	0.4 0.3 1.2	<.5 .5 <1 1 < 2	5.8 1.8 1.9	<.5 .5 <1 1 < 2	2.4 2.4 2.4
<.5 .5 <1 1 <2 2 <5	0.1 0.4 0.5 5.0	<.5 .5 <1 1 <2 2 <5	0.4 0.3 1.2 5.5	<.5 .5 <1 1 < 2 2 < 5	5.8 1.8 1.9 4.7	<.5 .5 <1 1 < 2 2 < 5	2.4 2.4 2.4 5.9
<.5 .5 <1 1 <2 2 <5 5 <10	0.1 0.4 0.5 5.0 28.9	<.5 .5 <1 1 <2 2 <5 5 <10	0.4 0.3 1.2 5.5 14.8	<.5 .5 <1 1 <2 2 <5 5 <10	5.8 1.8 1.9 4.7 17.3	<.5 .5 <1 1 <2 2 <5 5 <10	2.4 2.4 2.4 5.9 22.3
<.5 .5 <1 1 <2 2 <5 5 <10 ≥10	0.1 0.4 0.5 5.0 28.9 65.1	<.5 .5 <1 1 <2 2 <5 5 <10 ≥10	0.4 0.3 1.2 5.5 14.8 77.8	<.5 .5 <1 1 <2 2 <5 5 <10 ≥10	5.8 1.8 1.9 4.7 17.3 68.4	<.5 .5 <1 1 <2 2 <5 5 <10 ≥10	2.4 2.4 2.4 5.9 22.3 64.7 16637
<.5 .5 <1 1 <2 2 <5 5 <10 ≥10 N=	0.1 0.4 0.5 5.0 28.9 65.1	<.5 .5 <1 1 <2 2 <5 5 <10 ≥10 N=	0.4 0.3 1.2 5.5 14.8 77.8	<.5 .5 <1 1 <2 2 <5 5 <10 ≥10 N=	5.8 1.8 1.9 4.7 17.3 68.4	<.5 .5 <1 1 <2 2 <5 5 <10 ≥10 N=	2.4 2.4 2.4 5.9 22.3 64.7 16637
<.5 .5 <1 1 <2 2 <5 5 <10 ≥10 N=  Quilleyute  VISIBILITY (NM)	0.1 0.4 0.5 5.0 28.9 65.1 21518	<.5 .5 <1 1 <2 2 <5 5 <10 ≥10 N=  Astoris	0.4 0.3 1.2 5.5 14.8 77.8 17805	<.5 .5 <1 1 <2 2 <5 5 <10 ≥10 N=  North Bend	5.8 1.8 1.9 4.7 17.3 68.4 20793	<.5 .5 < 1 1 < 2 2 < 5 5 < 10 ≥ 10 N=  Ocean Station Vessel  VISIBILITY (NM)	2.4 2.4 2.4 5.9 22.3 64.7 16637
<.5 .5 <1 1 <2 2 <5 5 <10 ≥10 N=  Quillayute  visiBility (NM) <.5	0.1 0.4 0.5 5.0 28.9 65.1 21518	<.5 .5 <1 1 <2 2 <5 5 <10 ≥10 N=  Astoria  VISIBILITY (NM) <.5	0.4 0.3 1.2 5.5 14.8 77.8 17805	<.5 .5 <1 1 <2 2 <5 5 <10 ≥10 N=  North Bend  VISIBILITY (NM) <.5	5.8 1.8 1.9 4.7 17.3 68.4 20793	<.5 .5 < 1 1 < 2 2 < 5 5 < 10 ≥10 N=  Ocean Station Vessel  VISIBILITY (NM) <.5	2.4 2.4 2.4 5.9 22.3 64.7 16637
<.5 .5 <1 1 <2 2 <5 5 <10 ≥10 N=  Quillayute  VISIBILITY (NM) <.5 .5 <1	0.1 0.4 0.5 5.0 28.9 65.1 21518	<.5 .5 <1 1 <2 2 <5 5 <10 ≥10 N=  Astoris  VISIBILITY (NM) <.5 .5 <1	0.4 0.3 1.2 5.5 14.8 77.8 17805	<.5 .5 <1 1 <2 2 <5 5 <10 ≥10 N=  North Bend  VISIBILITY (NM) <.5 .5 <1	5.8 1.8 1.9 4.7 17.3 68.4 20793	<.5 .5 < 1 1 < 2 2 < 5 5 < 10 ≥10 N=  Ocean Station Vessel  VISIBILITY (NM) <.5 .5 < 1	2.4 2.4 2.4 5.9 22.3 64.7 16637
<.5 .5 <1 1 <2 2 <5 5 <10 ≥10 N=  Quillayute  visiBility (NM) <.5 .5 <1 1 <2	0.1 0.4 0.5 5.0 28.9 65.1 21518	<.5 .5 <1 1 <2 2 <5 5 <10 ≥10 N=  Astoris  VISIBILITY (NM) <.5 .5 <1 1 <2	0.4 0.3 1.2 5.5 14.8 77.8 17805	<.5 .5 <1 1 <2 2 <5 5 <10 ≥10 N=  North Bend  VISIBILITY (NM) <.5 .5 <1 1 <2	5.8 1.8 1.9 4.7 17.3 68.4 20793	<.5 .5 < 1 1 < 2 2 < 5 5 < 10 ≥ 10 N=  Ocean Station Vessel  VISIBILITY (NM) <.5 .5 < 1 1 < 2	2.4 2.4 2.4 5.9 22.3 64.7 16637
<.5 .5 <1 1 <2 2 <5 5 <10 ≥10 N=  Quillayute  visiBiLity (NM) <.5 .5 <1 1 <2 2 <5	0.1 0.4 0.5 5.0 28.9 65.1 21518	<.5 .5 <1 1 <2 2 <5 5 <10 ≥10 N=  Astoria  VISIBILITY (NM) <.5 .5 <1 1 <2 2 <5	0.4 0.3 1.2 5.5 14.8 77.8 17805 .5 0.5 0.5 1.2 4.0	<.5 .5 <1 1 <2 2 <5 5 <10 ≥10 N=  North Bend  visiBiLity (NM) <.5 .5 <1 1 <2 2 <5	5.8 1.8 1.9 4.7 17.3 68.4 20793 	<.5 .5 < 1 1 < 2 2 < 5 5 < 10 ≥10 N=  Ocean Station Vessel  VISIBILITY (NM) <.5 .5 < 1 1 < 2 2 < 5	2.4 2.4 2.4 5.9 22.3 64.7 16637 ** 5.9 2.7 4.3 10.6
<.5 .5 <1 1 <2 2 <5 5 <10 ≥10 N=  Quillayute  VISIBILITY (NM) <.5 .5 <1 1 <2 2 <5 5 <10	0.1 0.4 0.5 5.0 28.9 65.1 21518 2.3 3.4 2.7 9.2 55.4	<.5 .5 <1 1 <2 2 <5 5 <10 ≥10 N=  Astoria  VISIBILITY (NM) <.5 .5 <1 1 <2 2 <5 5 <10	0.4 0.3 1.2 5.5 14.8 77.8 17805 21.9	<.5 .5 <1 1 <2 2 <5 5 <10 ≥10 N=  North Bend  VISIBILITY (NM) <.5 .5 <1 1 <2 2 <5 5 <10	5.8 1.8 1.9 4.7 17.3 68.4 20793 2 1.7 1.1 3.3 7.7 37.5	<.5 .5 < 1 1 < 2 2 < 5 5 < 10 ≥10 N=  Ocean Station Vessel  VISIBILITY (NM) <.5 .5 < 1 1 < 2 2 < 5 5 < 10	2.4 2.4 2.4 5.9 22.3 64.7 16637 5.9 2.7 4.3 10.6 57.8
<.5 .5 <1 1 <2 2 <5 5 <10 ≥10 N=  Quillayute  visiBiLity (NM) <.5 .5 <1 1 <2 2 <5	0.1 0.4 0.5 5.0 28.9 65.1 21518	<.5 .5 <1 1 <2 2 <5 5 <10 ≥10 N=  Astoria  VISIBILITY (NM) <.5 .5 <1 1 <2 2 <5	0.4 0.3 1.2 5.5 14.8 77.8 17805 .5 0.5 0.5 1.2 4.0	<.5 .5 <1 1 <2 2 <5 5 <10 ≥10 N=  North Bend  visiBiLity (NM) <.5 .5 <1 1 <2 2 <5	5.8 1.8 1.9 4.7 17.3 68.4 20793 	<.5 .5 < 1 1 < 2 2 < 5 5 < 10 ≥10 N=  Ocean Station Vessel  VISIBILITY (NM) <.5 .5 < 1 1 < 2 2 < 5	2.4 2.4 2.4 5.9 22.3 64.7 16637 ** 5.9 2.7 4.3 10.6

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Marine Area A	Mari	ne Area B		Merin	e Area C		Marine Area D	11-119
VISIBILITY (NM)	<u>z</u>	SIBILITY (NM)	<u>%</u>	VIS	SIBILITY (NM)	3	VISIBILITY (NM)	3
,	.5	<.5	1.7		<.5	1.1	<.5	5.7
	11	5 <1	1.1	11	5 <1	0.7	.5 <1	2.7
1	l l	1<2	1.4	11	<2	1.6	1<2	4.6
	11	2 < 5	6.8	11:	<5	5.6	2 < 5	9.6
Į.	11	<10	21.2	11	<10	22.1	5 < 10	29.2
1	9.3	≥10	67.9	1.1	≥10 ≥10	68.8	≥10	48.3
. ∤	641	N=	3564	}}	N=	2195	N=	9058
14- 10	,41		3304	_ ][		_ 2193	11-	9030
60 160	(150°	1	140			130	Marine Area E	
		Mr. B				1	VISIBILITY (NM)	3
E	I/	1000					<.5	4.3
TV (NM	0 7		~~ - <del>-</del>	·	<b>-</b> 4:	·	.5 <1	2.2
<.5	VV (N)	D 2 VV (N	(M) %	VV (NM)	<u>,</u> 1	ł	1 < 2 2 < 5	3.7 9.6
.5 <1	2.5	2.4		<.5 1	5		5 < 10	26.1
1<2	0.9 .5 <1	1.4 .5 <1			.9	)	≥10	54.1
2<5	2.3 1<2	2.0 1<2	ŭ.,		11 1000		N=	10278
15.510	7.1 2<5	6.9 2 <5	. '. 🗸		.0	L	Merine Area F	
1 >10	23.5 5 < 10	20.6 5 < 10	٠.٠ ا	-	.9 165		1.1	Í
55: N= 2	53.7 ≥10 955 N-	66.7 ≥10	67.0		.6 DE	36	VISIBILITY (NM)	*
	322 N=	3176 N=	3608		29		.5 <1	1.4 2.7
		,,,_	3008	14- 10	23	2 2 (M/L)	1<2	2.2
VV (NM)	,					77/	2 < 5	6.4
1 \.5 c	VV (NM)	3 VV (NA	4) 7	VV (NM)	2 VV 0	MM) 3 5	5 < 10	24.4
J.5 <1 3.	.8 <.5	6.5 <.5	5.7		3.1 <.	5 2.0	≥10 N=	62.8 5207
		3.0 5<1	3.0	.5 <1	1.7 5	(1 2.6 3)	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	3207
1 - 10 10	_   ` ` ` ` ` ` `	4.3 1<2	4.3	1<2	2.9 1	(2  2.0)		
1 7 70 31 5	2 < 5 1	1.0 2 < 5	10.7		8.7 2	<5 6.2	}	1
1 1 1 1 1 2	3 < 10 4	3.5 5 < 10			25.9 5 <	10 27.1	3	ļ
1 1 640.	1 ≤10 3	.6 ≥10	47.0			10 60.1	2-1	ļ
500	∮ N= 122		6570	_		= 5588	3	,A.,
VV (NM)			03/0					
<.5	VV (NM)		+			v (NM) %	VV (NM)	$\sim$ $\sqrt{1}$
1 5 - 0.41		<u>VV (NM)</u>		VV (NM)		<.5 3.3	<.5	7
1<2 3.2 2<5 4.2	5 -1	3 <.5	6.6	<.5	-r . ~ j		1.5	V (
	1/2	4	2.5	.5 <1		, , , , , ,	4.5	<b>\</b> \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \
5 < 10 30.6	2 <5 10.	- 1	4.6	1<2	J. J	1<2 2.3	1 /	1 2
≥10 29.6	5 < 10 26.		10.7	2 < 5	U . U	<10 28.5	64.	1 ( 1
N= 46.0 N= 4976	≥10 48.			5 < 10		≥10 58.2	0975	1 / [
79/6	N= 486		46.5	≥10	53.6	N= 9339	N= 00.	1
	. 30 ,	' ∮ N=	4570	N=	5946	11-	1	\ \ \
								\ \ \
						<del></del>		
5 Visibility Thresholds	3							May

II-120							
Kodiek		Homer		Kenai		Anchorage	
VISIBILITY (NM)	<u> </u>	VISIBILITY (NM)	3	VISIBILITY (NM)	<u>z</u>	VISIBILITY (NM)	<u>z</u>
<.5	2.2	<.5	0.4	<.5	0.8	<.5	0.0
.5 <1	2.3	.5 <1	0.2	.5 <1	0.4	.5 <1	0.0
1<2	4.2	1<2	0.3	1<2	0.4	1<2	0.1
2 < 5	9.9	2 <5	0.6	2 <5	1.6	2 < 5	0.8
5 < 10	20.4	5 < 10	4.2	5 <10	4.7	5 < 10	5.2
≧10	61.0	≥10	94.3	≥10	92.2	≥10	93.8
N=	23274	N=	17614	N=	20678	N=	22320
Valdez		Middleton		Cordova		Yakutat	
VISIBILITY (NM)	<u> </u>	VISIBILITY (NM)	ž	VISIBILITY (NM)	<u>z</u>	VISIBILITY (NM)	3
<.5	0.1	<.5	5.4	<.5	0.6	<.5	2.0
.5 <1	0.1	.5 <1	3.3	.5 <1	0.7	.5 <1	1.8
1<2	0.6	1<2	3.3	1<2	2.2	1<2	3.6
2 < 5	5.8	2 < 5	7.5	2 < 5	8.3	2 < 5	7.5
5 < 10	23.3	5 < 10	16.3	5 < 10	23.3	5 < 10	21.1
≥10	70.1	≥10	64.2	≥10	64.9	≥10	64.0
N=	5196	N=	10643	N=	23463	N=	17750
		11		11	ì	·	
Sitka		Annette		Cape St. James		Tofíno	
Sitka VISIBILITY (NM)	7.	Annette  V:SIBILITY (NM)	3	Cape St. James  VISIBILITY (NM)	7.	Tofino VISIBILITY (NM)	7.
VISIBILITY (NM)	<u>z</u> 0.6	VISIBILITY (NM)	<u>*</u> 0.9	VISIBILITY (NM)		VISIBILITY (NM)	
VISIBILITY (NM)	0.6	<u>v:sibility (nm)</u> <.5	0.9	VISIBILITY (NM)	10.1	VISIBILITY (NM)	4.4
<u>visibility (nm)</u> <.5 .5 <1	0.6 0.5	VISIBILITY (NM)  <.5 .5 <1	0.9 0.7	VISIBILITY (NM)  <.5 .5 <1	10.1 1.9	<u>visibility (nm)</u> <.5 .5 <1	4.4 3.3
<u>visibility (nm)</u> <.5 .5 <1 1 < 2	0.6 0.5 1.1	visibility (NM) <.5 .5 <1 1 <2	0.9 0.7 1.9	VISIBILITY (NM)  <.5 .5 <1 1 < 2	10.1 1.9 2.1	VISIBILITY (NM)	4.4 3.3 3.0
visibility (NM) <.5 .5 <1 .1 <2 2 <5	0.6 0.5	VISIBILITY (NM)  <.5 .5 <1	0.9 0.7	VISIBILITY (NM)  <.5 .5 <1	10.1 1.9	visibility (NM) <.5 .5 <1 1 < 2	4.4 3.3
<u>visibility (nm)</u> <.5 .5 <1 1 < 2	0.6 0.5 1.1 7.0	visibility (NM) <.5 .5 <1 1 < 2 2 < 5	0.9 0.7 1.9 5.7	VISIBILITY (NM)  <.5  .5 <1  1 < 2  2 < 5	10.1 1.9 2.1 4.0	visibility (nm) <.5 .5 <1 1 <2 2 <5	4.4 3.3 3.0 6.6
VISIBILITY (NM)  <.5 .5 <1 1 <2 2 <5 5 <10	0.6 0.5 1.1 7.0 27.5	VISIBILITY (NM)  <.5  .5 <1  1 <2  2 <5  5 <10	0.9 0.7 1.9 5.7 13.5	VISIBILITY (NM)  <.5  .5 <1  1 <2  2 <5  5 <10	10.1 1.9 2.1 4.0 17.9	VISIBILITY (NM)  <.5 .5 <1 1 <2 2 <5 5 <10	4.4 3.3 3.0 6.6 22.5
VISIBILITY (NM)  <.5 .5 < 1 1 < 2 2 < 5 5 < 10 ≥10	0.6 0.5 1.1 7.0 27.5 63.2	VISIBILITY (NM)  <.5  .5 <1  1 <2  2 <5  5 <10  ≥10	0.9 0.7 1.9 5.7 13.5 77.2	VISIBILITY (NM)  <.5  .5 <1  1 <2  2 <5  5 <10  ≥10	10.1 1.9 2.1 4.0 17.9 64.0	VISIBILITY (NM)  <.5 .5 <1 1 <2 2 <5 5 <10 ≥10	4.4 3.3 3.0 6.6 22.5 60.2
VISIBILITY (NM)  <.5 .5 <1 1 <2 2 <5 5 <10 ≥10 N=	0.6 0.5 1.1 7.0 27.5 63.2	VISIBILITY (NM)  <.5  .5 <1  1 <2  2 <5  5 <10  ≥10  N=	0.9 0.7 1.9 5.7 13.5 77.2	VISIBILITY (NM)  <.5  .5 <1  1 <2  2 <5  5 <10  ≥10  N=	10.1 1.9 2.1 4.0 17.9 64.0 20120	VISIBILITY (NM)  <.5 .5 <1 1 <2 2 <5 5 <10 ≥10 N=	4.4 3.3 3.0 6.6 22.5 60.2 16023
VISIBILITY (NM)  <.5 .5 < 1 .1 < 2 .2 < 5 .5 < 10 .2 10 .N=  Quillayute  VISIBILITY (NM)	0.6 0.5 1.1 7.0 27.5 63.2 20842	VISIBILITY (NM)  <.5  .5 <1  1 <2  2 <5  5 <10  ≥10  N=  Aetoria  VISIBILITY (NM)	0.9 0.7 1.9 5.7 13.5 77.2 17217	VISIBILITY (NM)  <.5 .5 <1 1 <2 2 <5 5 <10 ≥10 N=    North Bend     VISIBILITY (NM)	10.1 1.9 2.1 4.0 17.9 64.0 20120	VISIBILITY (NM)  <.5 .5 <1 1 <2 2 <5 5 <10 ≥10 N=  Ocean Station Vessel  VISIBILITY (NM)	4.4 3.3 3.0 6.6 22.5 60.2 16023
VISIBILITY (NM)  <.5 .5 < 1 1 < 2 2 < 5 5 < 10 ≥10 N=  Quillayute  VISIBILITY (NM)  <.5	0.6 0.5 1.1 7.0 27.5 63.2 20842	VISIBILITY (NM)  <.5  .5 <1  1 <2  2 <5  5 <10  ≥10  N=   Actoria  VISIBILITY (NM)  <.5	0.9 0.7 1.9 5.7 13.5 77.2 17217	VISIBILITY (NM)  <.5  .5 <1  1 <2  2 <5  5 <10  ≥10  N=    North Bend    VISIBILITY (NM)   <.5	10.1 1.9 2.1 4.0 17.9 64.0 20120	VISIBILITY (NM)  <.5 .5 <1 1 <2 2 <5 5 <10 ≥10 N=  Ocean Station Vessel  VISIBILITY (NM)  <.5	4.4 3.3 3.0 6.6 22.5 60.2 16023
VISIBILITY (NM)  <.5 .5 < 1 1 < 2 2 < 5 5 < 10 ≥10 N=  Quillayute  VISIBILITY (NM)  <.5 .5 < 1	0.6 0.5 1.1 7.0 27.5 63.2 20842	VISIBILITY (NM)  <.5 .5 <1 1 <2 2 <5 5 <10 ≥10 N=  Actoric  VISIBILITY (NM)  <.5 .5 <1	0.9 0.7 1.9 5.7 13.5 77.2 17217	VISIBILITY (NM)  <.5  .5 <1  1 <2  2 <5  5 <10  ≥10  N=    North Bend	10.1 1.9 2.1 4.0 17.9 64.0 20120	VISIBILITY (NM)  <.5 .5 <1 1 <2 2 <5 5 <10 ≥10 N=  Ocean Station Vessel  VISIBILITY (NM)  <.5 .5 <1	4.4 3.3 3.0 6.6 22.5 60.2 16023
VISIBILITY (NM)  <.5 .5 < 1 1 < 2 2 < 5 5 < 10 ≥10 N=  Quillayute  VISIBILITY (NM)  <.5 .5 < 1 1 < 2	0.6 0.5 1.1 7.0 27.5 63.2 20842	VISIBILITY (NM)  <.5 .5 <1 1 <2 2 <5 5 <10 ≥10 N=  Astoria  VISIBILITY (NM)  <.5 .5 <1 1 <2	0.9 0.7 1.9 5.7 13.5 77.2 17217 2 0.6 0.7 1.4	VISIBILITY (NM)  <.5 .5 < 1 1 < 2 2 < 5 5 < 10 ≥10 N=  North Bend  VISIBILITY (NM)  <.5 .5 < 1 1 < 2	10.1 1.9 2.1 4.0 17.9 64.0 20120	VISIBILITY (NM)  <.5 .5 <1 1 <2 2 <5 5 <10 ≥10 N=  Ocean Station Vessel  VISIBILITY (NM)  <.5 .5 <1 1 <2	4.4 3.3 3.0 6.6 22.5 60.2 16023
VISIBILITY (NM)  <.5 .5 < 1 1 < 2 2 < 5 5 < 10 ≥10 N=  Quillayute  VISIBILITY (NM)  <.5 .5 < 1 1 < 2 2 < 5	0.6 0.5 1.1 7.0 27.5 63.2 20842 2.7 5.0 3.8 9.0	VISIBILITY (NM)  <.5 .5 <1 1 <2 2 <5 5 <10 ≥10 N=  Aetoria  VISIBILITY (NM)  <.5 .5 <1 1 <2 2 <5	0.9 0.7 1.9 5.7 13.5 77.2 17217 2 0.6 0.7 1.4 5.6	VISIBILITY (NM)  <.5 .5 <1 1 <2 2 <5 5 <10 ≥10 N=    North Bend	10.1 1.9 2.1 4.0 17.9 64.0 20120 2.3 1.9 4.4 8.3	VISIBILITY (NM)  <.5 .5 <1 1 <2 2 <5 5 <10 ≥10 N=   Ocean Station Vessel  VISIBILITY (NM)  <.5 .5 <1 1 <2 2 <5	4.4 3.3 3.0 6.6 22.5 60.2 16023
VISIBILITY (NM)  <.5 .5 < 1 1 < 2 2 < 5 5 < 10 ≥10 N=  Quillayute  VISIBILITY (NM)  <.5 .5 < 1 1 < 2 2 < 5 5 < 10	0.6 0.5 1.1 7.0 27.5 63.2 20842 2.7 5.0 3.8 9.0 52.0	VISIBILITY (NM)  <.5 .5 <1 1 <2 2 <5 5 <10 ≥10 N=  Astoria  VISIBILITY (NM)  <.5 .5 <1 1 <2 2 <5 5 <10	0.9 0.7 1.9 5.7 13.5 77.2 17217 3 0.6 0.7 1.4 5.6 24.5	VISIBILITY (NM)  <.5 .5 <1 1 <2 2 <5 5 <10 ≥10 N=  North Bend  VISIBILITY (NM)  <.5 .5 <1 1 <2 2 <5 5 <10	10.1 1.9 2.1 4.0 17.9 64.0 20120 2.3 1.9 4.4 8.3 35.6	VISIBILITY (NM)  <.5 .5 <1 1 <2 2 <5 5 <10 ≥10 N=  Ocean Station Vessel  VISIBILITY (NM)  <.5 .5 <1 1 <2 2 <5 5 <10	4.4 3.3 3.0 6.6 22.5 60.2 16023 P 8.5 3.2 4.7 12.8 55.2
VISIBILITY (NM)  <.5 .5 < 1 1 < 2 2 < 5 5 < 10 ≥10 N=  Quillayute  VISIBILITY (NM)  <.5 .5 < 1 1 < 2 2 < 5	0.6 0.5 1.1 7.0 27.5 63.2 20842 2.7 5.0 3.8 9.0	VISIBILITY (NM)  <.5 .5 <1 1 <2 2 <5 5 <10 ≥10 N=  Aetoria  VISIBILITY (NM)  <.5 .5 <1 1 <2 2 <5	0.9 0.7 1.9 5.7 13.5 77.2 17217 2 0.6 0.7 1.4 5.6	VISIBILITY (NM)  <.5 .5 <1 1 <2 2 <5 5 <10 ≥10 N=    North Bend	10.1 1.9 2.1 4.0 17.9 64.0 20120 2.3 1.9 4.4 8.3	VISIBILITY (NM)  <.5 .5 <1 1 <2 2 <5 5 <10 ≥10 N=   Ocean Station Vessel  VISIBILITY (NM)  <.5 .5 <1 1 <2 2 <5	4.4 3.3 3.0 6.6 22.5 60.2 16023

June

60 450 Major And 5	
Merine Area E   More Area Area E   More Area Area E   More Area E   More Area Area E   More Area A	5.9 2.5 3.6 8.4 26.0 53.5 9726 2.5 2.5 2.5 6.1 25.5 61.0 6113

Marine Area C

Marine Area A

5 Visibility Thresholds

### 11-122

Kodiak		Homer		Kensi		Anchorage	
VISIBILITY (NM)	3	VISIBILITY (NM)	7.	VISIBILITY (NM)	<u> </u>	VISIBILITY (NM)	3
<.5	2.0	<.5	0.6	<.5	0.9	<.5	o.
.5 <1	2.1	.5 <1	0.2	.5 <1	0.7	.5 <1	· ·
1<2	3.9	1<2	0.4	1<2	0.8	1<2	7.3
2 < 5	8.1	2 < 5	1.2	2 < 5	2.6	2 < 5	1.6
5 < 10	18.6	5 < 10	5.9	5 < 10	7.5	5 < 10	7.8
≥10	65.4	≥10	91.6	≥10	87.7	<u>≥</u> 10	90.2
N=	24049	N=	18989	N=	22069	N=	23064
Veldez		Middleton		Cordova		Yekutat	
VISIBILITY (NW)	3	VISIBILITY (NM)	ž	VISIBILITY (NM)	3	V-S(BILITY (NM)	3
<.5	1.7	<.5	6.0	<.5	0.7	<.5	1.9
.5 <1	2.8	.5 <1	3.8	.5 <1	1.3	.5 <1	3.8
1<2	3.1	1<2	3.9	1<2	4.0	1<2	6.6
2 < 5	9.0	2 < 5	8.8	2 < 5	11.8	2 < 5	10.7
5 < 10	22.0	5 <10	16.8	5 < 10	26.0	5 < 10	21.6
≥10	61.5	{{ ≥10	60.7	≥10	56.2	≥10	55.4
N=	5531	N=	11156	N=	24319	N=	18338
Sitka		Annette		Cape St. James		Tofino	
VISIBILITY (NM)	3	VISIBILITY (NM)	3	VISIBILITY (NM)	<u>z</u>	VISIBILITY (NM)	3
<.5	0.6	<.5	1.2	<.5	12.7	<.5	7.5
.5 <1	0.8	.5 <1	1.0	.5 <1	2.1	.5 <1	4.2
1<2	1.9	1 < 2	2.6	1<2	1.7	1<2	3.3
2 < 5	10.3	2 <5	6.6	2 < 5	4.0	2 < 5	5.9
5 < 10	30.1	5 < 10	12.3	5 < 10	14.6	5 < 10	19.7
≥1O	56.5	≥10	76.3	≥10	64.8	≥10	59.4
N=	22311	N=	18497	N=	20809	N=	16500
Quilleyute		Astoria		North Bend		Ocean Station Vesse	I P
VISIBILITY (NM)	<u>z</u>	VISIBILITY (NM)	<u>*</u>	VISIBILITY (NM)	<u>"</u>	VISIBILITY (NM)	3
<.5	3.9	<.5	0.7	<.5	2.9	<.5	11.3
.5 <1	4.6	.5 <1	0.7	.5 <1	2.2	.5 <1	3.8
<b>^&lt;2</b>	3.3	1<2	1.1	1<2	5.3	1<2	6.0
	7.9	2 <5	4.0	2 <5	8.5	2 < 5	13.5
2 <5		5 440	23.3	5 < 10	35.8	5 < 10	49.9
2 <5 5 <10	47.4	5 < 10	23.3				+ 2 . 2
	47.4 32.8	5 < 10 ≥10	70.1	≥10	45.3	≥10	15.5

Marine Area A	Marine Area B		Marine Area C		Marine Area D	
VISIBILITY (NM)	VISIBILITY (NM)	<u>z</u>	VISIBILITY (NM)	7.	VISIBILITY (NM)	3
<.5 2.4	() <.5	3.4	<.5	1.6	<.5	11.9
.5 <1 1.5	.5 <1	1.6	.5 <1	2.6	.5 <1	4.1
1<2 3.0	1<2	2.2	1<2	2.6	1<2	4.7
2 < 5 5.5	2 <5	6.3	2 < 5	8.5	2 < 5	10.1
5 < 10 20.6	5 <10	20.1	5 <10	23.9	5 <10	29.8
≥10 67.0	<u> </u>   ≥10	66.4	≥10	60.8	≥10	39.5
N= 2127	N=	3689	N=	2889	N=	9513
60 160	(150°	140°		130 °	Marine Area E	
K /	Son Son Son	ŧ		·	VISIBILITY (NW)	3
Foll 1	3000	_			<.5	7.3
/ VY (NM)	Z VV (1111)				.5 <1	3.7 4.3
1 / / / .5	3.7 ×	V (NM) 3 VV	(NM) 3	į	2 < 5	9.6
$1/2$ $1^{-3}$	.8 5 4.4		c.5 2.4		5 <10 ≥10	28.2 46.8
	.0 152 2.0 1.5		<1 1.4		N=	10502
5-10	3 2 2 5		<2 3.3		<u> </u>	
1 > 22.	9 15 < 10		<5 8.9 13 55 5 (10 24.7 1) (1)	72	Marine Area F	
N- 02.3	3   ≥10	22.0	10 59.3	20 p	VISIBILITY (NM	-
3381	N= 3540 N	92.5	= 2073	12/19	<.5 .5 <1	3.2 3.5
		- 3/1/	201	2 60 000	1<2	3.2
VV (NM)	100	<del>  -</del> -			2 < 5	8,4
<.5 15	1 / -	(NM) % V	· · · · · · · · · · · · · · · · · · ·	(NM) 3 (5 4.2	5 <10 ≧10	25.8 55.9
1 4 6		.5 10.2 ¶	(.)		\	6625
5.5	1<2			$\begin{array}{cccccccccccccccccccccccccccccccccccc$		
15-10 11.01	3.7		1.2	<5 7.1 1 <5		
30,31	5 < 10 30 1		2 \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	<10 28.7	\\{\rangle}	
N= 32.7 N= 6698	38.1 5 < ≥10 25.7 ≥10	_		≥10 53.9	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	
50.	N= 12616 N=	33.0	210 30.1	N= 6316	7	<b>~</b> ^\_∧
VV		0837	,,,,			
VV (NM)	V (NM) 2			VV (NM) %	VV (NM) 3 7	in the second
1.5 = 19.21	55	—		4 7	<.5 3.7	
1 1 1 - 2 . / 1 5	_1		<.5 8.0	<.5 4.7 .5 <1 2.2	1.5<1 1.6	
1 2 <5 < 1 1.	' ' '   .3 \			$\frac{1}{1}$ 2.9	1 1 4.3	1 /2
5 < 10 25 5 2	<5 11 0 7 2		1<2 4.0	2<5 6.8	26.0	1 6
≥10 31 5 5 <	10 27 0 5 10		2 < 5 8.6 < 10 26.3	5<10 24.7	62.4	!
7507/	36.1 ≥10	, _	<10 26.3 ≥10 50.4	≥10 58.6	1024	+ 1
030/ N=	4911 N=		N = 5443	N= 8933	5 \ ''	-
	]	, +90	,,,=			
					\ \ !	
				<del></del>		July

# II-124

Kodiek	<del></del>	Homer		Kensi		Anchorage	
VISIBILITY (NM)	<u> </u>	VISIBILITY (NM)	ž	VISIBILITY (NM)	3	VISIBILITY (NM)	3
<.5	1.9	<.5	1.0	<.5	1.0	<.5	0.3
.5 <1	1.7	.5 <1	0.4	.5 <1	0.6	.5 <1	0.1
1<2	3.4	1<2	0.5	1<2	0.9	1<2	0.3
2 <5	7.3	2 < 5	1.4	2 < 5	2.6	2 < 5	1.6
5 < 10	20.8	5 < 10	6.7	5 < 10	9.0	5 < 10	8.6
≥10	64.8	≧10	90.0	≥10	85.8	<u>≥</u> 10	89.1
N=	24535	N=	19383	N=	22051	N=	23064
,							
Veldez	ı	Middleton		Cordova		Yakutat	
VISIBILITY (NM)	ž	VISIBILITY (NM)	<u>z</u>	VISIBILITY (NM)	<u> </u>	VISIBILITY (NM)	3
<.5	3.2	<.5	6.0	<.5	0.7	<.5	2.9
.5 <1	3.7	.5 <1	2.5	.5 <1	1.4	.5 <1	3.5
1<2	3.8	1<2	3.8	1<2	4.1	1<2	7.0
2 <5	12.1	2 <5	9.1	2 < 5	12.1	2 <5	11.2
5 < 10	20.0	5 < 10	17.3	5 < 10	27.7	5 < 10	25.C
≥10	57.2	≥10	61.4	≧10	54.0	≥10	50.4
N=	5780	N=	11156	N=	24478	N=	19564
Sitka		Annette		Cape St. James		Tofino	
VISIBILITY (NM)	<u>z</u>	VISIBILITY (NM)	7.	VISIBILITY (NM)	<u>3</u>	VISIBILITY (NM)	3
<.5	0.9	<.5	1.8	<.5	12.2	<.5	11.7
.5 <1	0.9	.5 <1	1.4	.5 <1	2.1	.5 <1	5.2
1<2	2.0	1<2	3.0	1<2	1.6	1<2	3.5
2 <5	9.5	2 <5	7.8	2 <5	3.7	2 < 5	7.1
5 < 10	31.8	5 < 10	14.5	5 < 10	13.1	5 < 10	21.5
≥10	54.9	≥10	71.5	≥10	67.3	≥10	51.0
N=	22342	N=	18953	N=	20801	N=	16539
Quillayute		Astoria		North Bend		Ocean Station Vesse	I P
VIS(BILITY (NM)	<u>z</u>	VISIBILITY (NM)	<u> 3</u>	VISIBILITY (NM)	%	VISIBILITY (NM)	3
<.5	5.8	<.5	2.2	<.5	<u>*</u> 5.8	<.5	10.2
	5.8 4.7	.5 <1	1.3	.5 <1	3.5	.5 <1	4.1
.5 <1 1 <2	2.8	1<2	1.8	1<2	6.1	1<2	6.1
2 < 5	2.0 8.2	2 < 5	5.9	2 < 5	9.6	2 < 5	11.5
2 < 5 5 < 10	46.8	5 < 10	24.5	5 < 10	9.6 37.7	5 < 10	52.2
5 < 10 ≧10	31.7	1 5 < 10 1 ≥10	64.2	5 < 10   ≥10	37.7	≥10	52.2 15.9
≥10 N=	7171	N=	18016	N=	37.3 18842		75.9 7525
· <b>v</b> —	, , , ,					][	
August							Thresholds

Marine Area A		Marine Area B		Marine Area C		Marine Area D	
VISIBILITY (NM)	ž	VISIBILITY (NM)	<u>z</u>	VISIBILITY (NM)	3	VISIBILITY (NM)	<u>z</u>
<.5	4.5	<.5	3.4	<.5	1.6	<.5	13.2
.5 <1	1.6	.5 <1	1.7	.5 <1	2.7	.5 <1	4.0
1<2	2.1	1<2	2.4	1<2	2.5	1<2	4.8
2 < 5	4.9	2 < 5	6.1	2 < 5	6.1	2 < 5	11.0
5 <10	22.2	5 < 10	20.6	5 < 10	21.8	5 < 10	25.9
≥10	64.7	≥10	65.8	10 ≥10	65.3	≥10	41.0
				N=	1	N=	
N=	1887	N=	3582		2802	N-	9639
160	است است	7(150	140		130	Marine Area E	
	کر د	SOLZ,				VISIBILITY (NM)	5
<del>-1</del>	トーエノ	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~				<.5	7.€
	VV (NM)	7	<del></del>		·	.5 <1	3.0
107		VV (NM)		i		1<2	4.0
1 /	1 <.5 .5 <1 5.8	< 5		V (NM) 3		2 < 5	9.9
المهر الرا	1 5	5	1.5 2.2	<.5 2.8	ĺ	5 <10 ≥10	25.9 49.5
~ 5 !	152 2 2	1.5	<1 1.6 .5	5<1 1.0		≥10 N=	10758
	< < > = - !	1<2 2.2 1	(2 2.5	1<2 3.4			10750
4	10 21 3	2<5 6.3 2		2<5 6.9 N	, 178	Marine Area F	
•	≥10 62.3		10 22.1 5	<10 22.8	loge-	VISIBILITY (NM)	3
_ / /	30-	510 63.9 1 ≥10	_ ]	≥10 63.1 1 4	전 활기	<.5	3.
	-0/	N= 3359 N=		N= 2057	7. WAN	.5 <1	4.
1 -			36//	2031		1<2	3.
VVC	NM)		· <del></del>			2 < 5	6.
<i>i</i> <.5	3 / v	V (NM) % VV (	NIMA -	(NA) # 1 VV	(NM) 3	5 < 10	24.
, .5 <1	16.7	(5 12			<.5 3.6	≥10	58.
1 1<2	4.8 ] 5	<1 . 1 .		\.\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	<1 4.4	N=	655
1 2 < 5	3.4 1 1	(2) 7.3 1.3 <	0.0		2 3		====
5 < 10	12.11.5.	5		1 \2	1 7 2	1	
1 ≥10	.6 . 5 -1</td <td>0 - 4   2 &lt;</td> <td></td> <td>2</td> <td>_ :</td> <td><u> </u></td> <td></td>	0 - 4   2 <		2	_ :	<u> </u>	
N=	33.3	99.9 1 3 41	28.6	,	- ^ 1		
	7033 N=	<0.6 <b> </b> ≥10	42.3	≥10 55.5			
r	1 11-	12920 N=	6968	N= 8051 !	N= 6087	524°	
VV (NM)			1	1		(NM)	
1 < 5	7.8 VV (NA	1) % VV (NA			VV (NM) %	VV	
		1 .	:	¥ ¥ € € € € € € € € € € € € € € € € € €		1 2.3	
1 1<2	5.3 .5 <1		10.0	<.5 5.7		1.5 \ \ \ 3	
1 2 < 5	0.1 1<2	4.3 .5<1			1	1<2	1 2
15-10	.81 7 .5	5.0 1<2	4.2	1<2 2.9			1
1 >10 <6	016	10.8 2<5		2 < 5 7.7	4	5<10	
$I_{N-}$ 34.	0 1 >10	25.4 5 < 10		5 < 10 28 . 4 i	· / A Q	≥10	•
549	3 N=	40.0 ≥10	42.8	≥10 53.4		10002	<u> </u>
	1 11-	4860 N=	4616	N= 5483	N= 8891		
		İ		1			
						<u> </u>	

### II-126

Kodisk		Homer		Kenai		Anchorage	
VISIBILITY (NM)	<u> </u>	VISIBILITY (NM)	<b>%</b>	VISIBILITY (NM)	7	VISIBILITY (NM)	<u>3</u>
<.5	1.5	<.5	0.4	<.5	1.1	<.5	0.7
.5 <1	1.4	.5 <1	0.2	.5 <1	0.6	.5 <1	0.2
1<2	3.1	1 < 2	0.2	1<2	0.7	1 < 2	0.4
2 < 5	9.1	2 < 5	1.1	2 <5	2.3	2 < 5	1.6
5 < 10	24.8	5 < 10	9.7	5 < 10	11.8	5 < 10	8.8
≥10	60.1	≥10	88.3	≧10	83.5	<u> </u>   ≥10	88.3
N=	23750	N=	18749	N=	21419	N=	22320
Valdez		Middleton		Cordova		Yakutat	
VISIBILITY (NM)	ž	VIS.BILITY (NM)	<u>%</u>	VISIBILITY (NM)	<u> </u>	VISIBILITY (NM)	3
<.5	1.4	<.5	2.3	<.5	0.5	<.5	2.0
.5 <1	1.5	.5 <1	2.8	.5 <1	0.9	.5 <1	3.2
1<2	1.4	1<2	3.6	1<2	2.8	1<2	5.3
2 < 5	10.5	2 < 5	9.2	2 < 5	11.1	2 < 5	10.7
5 < 10	28.4	5 < 10	18.9	5 < 10	31.9	5 < 10	29.3
≥10	56.8	≧10	63.1	<u>}</u> 10	52.9	≥10	49.4
N-	5099	N=	10789	N=	23042	N=	18951
Sitka		Annette		Cape St. James		Tofino	
VISIBILITY (NM)	3	VISIBILITY (NM)	<u>%</u>	VISIBILITY (NM)	<b>3</b> .	VISIBILITY (NM)	3
<.5	1.2	<.5	2.2	<.5	12.0	<.5	8.3
.5 <1	0.7	.5 <1	1.3	.5 <1	2.1	.5 <^	5.6
1 < 2	1.7	1<2	2.7	1<2	2.3	1<2	4.1
2 <5	9.2	2 < 5	9.2	2 <5	5.7	2 < 5	8.8
5 < 10	35.5	5 < 10	17.9	5 < 10	16.2	5 < 10	22.8
≥10	51.6	≧10	66.6	≥10	61.6	1 ≥10	50.5
1∕1≡	21532	N=	18250	N=	20132	N=	15998
Quilfayute		Astoris		North Bend		Ocean Station Vesse	i P
VISIBILITY (NM)	3	VISIBILITY (NM)	7,	VISIBILITY (NM)	3	VISIB LITY (NM)	3
	4.6	<.5	2.8	<.5	7.9	<.5	7.2
<.5				II 5 < 1	3.4	il 5 / 1	
<.5 .5 <1	4.7	.5 <1	1.2	.5 <1	J.4	.5 <1	۷.0
	4.7 3.9	.5 <1 1 <2	1.2 1.9	1<2	6.4	1<2	2.8 4.5
.5 <1		11		11		i I	
.5 <1 1 <2	3.9	1<2	1.9	1 < 2	6.4	1<2	4.5
.5 <1 1 <2 2 <5	3.9 9.0	1 < 2 2 < 5	1.9 6.3	1 < 2 2 < 5	6.4	1 < 2 2 < 5	4.5 10.0

September

• \_\_\_

7.

Marine Area D

3

VISIBILITY (NM)

	· · · · ·	175757E	2	¥13181217 (14.44)	: 3	V131B1211 - (1641)	2
<.5	1.1	<.5	1.2	<.5	0.9	<.5	5.4
.5 <1	0.8	.5 <1	1.1	.5 <1	1.4	.5 <1	2.4
1<2	1.8	1<2	2.4	1<2	2.7	1<2	3.5
2 < 5	5.6	2 < 5	7.8	2 < 5	8.3	2 < 5	9.6
5 <10	24.9	5 < 10		5 < 10	22.5	5 < 10	1
		i	20.5	į.	1		27.4
≥10	65.9	≥10	67.0	≥10	64.2	≥10	51.8
N=	1005	N=	3199	N=	2337	N=	9000
		L					
60 160		/(150	140		130	Marine Area E	
7		~ 500-5			ļ	VISIBILITY (NM)	*
[-~1	1-7	2 200				<.5	4.8
MAD	VV (NM)	7				.5 <1	2.0
		VV (NM) 3 VV		i	}	1<2	3.2
	.5<1	< 5	- 1	(NM) 3		2 < 5 5 < 10	7.8 25.5
المهمية البو ا	1<2 1.0	5<1		C.5 2.4		≥10	56.8
ا کسہ کسیل	2-5 1.91	1<2		71 1\\C =		N=	9980
Mer.	5-1-	265		<2 2.1 N	1	(	
	>10	, '·□   2 ·		<5 7.5 €	Z <sub>i</sub>	Marine Area F	
·	N- 04.8	-0.0134	10 21.7 5	(10 23.6 <b>八</b> 分	135	VISIBILITY (NU)	3
55:	76671	V 0 1 ≥10	0 65.9  ≥	10 63.4 № 🗓	R. T.	<.5	4.0
		N= 3204 N=	3578 N	= 1728	- 301" "	.5 <1	3.4
1 vv	(NM)		į	•	2777	1<2	3.3
		V (NM)			_ 1	5 < 10	7.5 25.*
\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	.) -   -	- 1	NM) 3 V	V (NM) 2 V	V (NM)	10 ≥10	56.8
∫ .5 <	2	<.5 7.3 <.	<u> </u>	<.5 4.6	<.5 3.6	N=	6003
1<2		2.91.55		<1 1.9 .	5<1 3.5 P	, <b>/</b> L	
2 <5 5 <10	,	4.0 1<		<2 3.0	1<2 2.41	W. 2-1	
	28.0 ( = )	2.0 1 2<		<5 8.4	2<5 6.8	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	
≥10 N=	46 7	42.7 5<10		<10 25.1	5 < 10 27 0		
50°	D445 /	33.3 ≥10		10 57.0	>10 56./		i
-	N=	11952 N=		N= 7621 I	N= 5510	S 70	,
VV (NM)		j	,	, , , ,			· [
/ KNM)	3 VV (NN					VV (NM)	
√ <.5 .5 <1	8 6	1) 3 VV (NA	<u>4)</u> <u>z</u> <u>v</u>	V (NM) %	VV (NM)	1 <.5 3.7	ł
1.5 < 1	3.4 5	7.1 <.5		<.5 5.4	<.5 2.7	1.51	
1 1<2	4 ~ 1	2.5 .5 <1		<1 2.5	.5 <1 1.4	1.8	1
		4.5 1<2		<2 3.2	1<2 2.1	2 5 5.2	1
72	- \	10.0 2 < 5			1 2 2 5 . 5	124.5	
	2 10	29.0 5 < 10			5 10 24.5	12 63 3	
N= 48	$\alpha = 10$	47.0 ≥10			>10 63.8	10144	
45	93   N=	4571 N=		≥10 53.6	N= 9175	N= 1014	
			4519	N= 5551	1		}
ļ						<del>-</del>	ł
5 Visibility Thre	sholds						September
						`	

Marine Area C

VISIBILITY (NM)

Marine Area A

VISIBILITY (NM)

<u>%</u>

Marine Area B

VISIBILITY (NM)

<u>z</u>

II-128							
Kodiek		Homer		Kenai		Anchorage	
VISIBILITY (NM)	<u> </u>	VISIBILITY (NM)	<u>z</u>	VISIBILITY (NM)	3	VISIBIL . r (NM)	3
<.5	0.5	<.5	0.1	<.5	0.7	<.5	1 , 1
.5 <1	0.6	.5 <1	Ů.3	.5 <1	1.4	.5 <1	1.1
1<2	1,5	1<2	0.5	1<2	1.3	1<2	1.€
2 < 5	7.8	2 < 5	1.5	2 < 5	3.0	2 < 5	2.7
5 <10	27.0	5 < 10	11.3	5 < 10	12.6	5 < 10	8.8
≥10	62.6	≥10	86.2	≥10	81.0	≥10	84.5
N=	24550	N=	19456	N=	22113	N=	2306 1
Valdez		Middleton		Cordova		Yakutat	
VICIBILITY (NM)	3	VISIBILITY (NM)	*	VISIBILITY (NM)	3	VISIBILITY (NM)	3
<.5	1.2	<.5	0.7	<.5	0.2	<.5	0.6
.5 <1	2.3	.5 <1	1.4	.5 <1	0.7	.5 <1	1.7
1<2	1.5	1<2	3.3	1<2	1.7	1<2	3.8
2 < 5	12.5	2 < 5	9.5	2 < 5	11.8	2 <5	11.0
5 < 10	34.2	5 < 10	23.2	5 < 10	37.0	5 < 10	37.6
≥10	48.4	≥10	61.8	]] ≥10	48.6	≥10	45.4
N=	5622	N=	11151	N=	23756	N=	19587
Sitke		Annette		Cape St. James		Tofino	
VISIBILITY (NM)	3	VISIBILITY (NM)	3	VISIBILITY (NM)	<u> 3</u>	VISIBILITY (NM)	<u> 3</u>
<.5	0.2	<.5	1.0	<.5	10.8	<.5	7.0
.5 <1	0.4	.5 <1	1.2	.5 <1	3.1	.5 <1	6.5
1<2	0.9	1<2	3.1	1<2	2.9	1<2	4.9
2 < 5	9.6	2 < 5	11.7	2 < 5	7.7	2 < 5	9.6
5 < 10	42.1	5 < 10	23.3	5 < 10	21.5	5 < 10	25.8
≥10	46.7	≥10	59.6	≥10	54.0	≥10	46.2
N=	22329	N=	18849	N=	20806	N=	16262
Quillayute		Astoria		North Bend		Ocean Station Vesse	1 P
VISIBILITY (NM)	7.	VISIBILITY (NM)	<u> 3</u>	VISIBILITY (NM)	<u>3</u>	VISIBILITY (NM)	3
<.5	4.9	<.5	3.5	<.5	8.9	<.5	2.2
.5 <1	6.4	.5 <1	1.5	.5 <1	3.5	.5 <1	1.9
^<2	4.1	1<2	2.2	1 < 2	6.4	1<2	3.7
2 < 5	12.4	2 <5	8.7	2 < 5	13.8	2 < 5	9.2
5 < 10	53.3	5 < 10	28.0	5 < 10	42.7	5 < 10	60.6
≥10	18.9	≧10	56.2	≥10	24.8	≥10	22.5
N=	7181	N=	17904	N=	18845	N=	7408
October		] L		J <u> </u>		5 Visibility	Thresholds

Marine Area A		Marine Area B		Marine	Area C		Marin	e Area D	
VISIBILITY (NM)	3	VISIBILITY (NM)	<u>z</u>	VISIB	BILITY (NM)	3	VIS	IBILITY (NM)	ž
<.5	1.4	<.5	1.2	<	.5	0.6		<.5	1.9
.5 <1	1.0	.5 <1	0.9	.5		0.8	.5	5 <1	1.5
1<2	2.3	1<2	2.2	1 <	<2	1.8	1	<2	3.4
2 < 5	6.1	2 <5	8.4		<5	8.0	2	<5	9.1
5 < 10	23.0	5 < 10	22.8	∬ 5 <	10	26.5	∬ 5⋅	<10	28.7
≥10	66.3	≥10	64.5	≥	10	62.2		≥10	55.3
N=	1014	N=	3650		1=	2330		N=	8665
7 160		K <sub>150</sub>	140			130	Marin	e Area E	
							<u>v:</u>	SIBILITY (NM)	3
•	r						11	<.5	2.6
	I VV (NM)	721			7			5 <1 1 <2	1.8 3.4
	. < 5	VV (NM) 3 VV	(NM) 2 1		1		11	2 < 5	9.3
i	5 1.2	· · · · · · · · · · · · · · · · · · ·	3 1	<u>vv:nw:</u> 3			5	<10	28.5
1	1 - 2	.5 < 1	5 0.7		ે <u> </u> ૦		1	≥10	54.5
	2<5 2.31	1<2	1 0.9 <sub>1</sub> . 2 2.1 <sub>1</sub>	-	2 <b>1</b> · ·			N=	10202
	7.6 j		5 8.3		9 1			Merine Area F	
	≥10 21.21 ≥10 66.71 N= 780	23.3 15 < 10	25.215		2 1			VISIB-LITY (NM)	3
· · · · · · · · · · · · · · · · · · ·	V= 2891	= 10	62.9 <b>1</b>		7 1	•	}	<.5	2.3
r -	1	N= 3431 I N=	3844					.5 <1	3.5
1		!	i		1	7		1 < 2 2 < 5	3.8 8.9
, vv	· · · ·	V (NM)				٦ ١		5 < 10	26.9
/ <.5 / .5 <1	2.7	2 VV (N	<u>M)</u> ½ !	AA (IIW)	3 VV (A	~ 1	J)	≥10	54.5
1 1<2	<.3 ' ∈	<.^. <.0			3.1 <.5	- 0		N=	5539
2 < 5	3.9	١> ٥٠ ١ م٠٠			1.6 .5 <		L		
1 5 < 10	70.5	- 1 1 1 2	4.3	1<2	3.7 1 15				
<i>1</i> ≥10	32.5 . 5	2.0	10.2	2 < 5	9.7 1 2				
! N=	510		31.7		7.5 15<	1	1		
. 1	5519 N=	24.6  ≥10	47.8 L	≥10 5	4.4   ≥1	- 167	1	_	
· · · · · ·	1	11543 N=	5974 I	N= 7	295 ! N	= 5132	1	7	
VV (NM)			į.	_			7	A) ½ 1	
<.5	Z VV (NA	4) y 1	+		- I	(NM) %	1 VV (NI	2.8 1	
. 5 -1	3.5	- <u>vv (NM</u>	4.0	VV (NM)	- 1	(1112	\ <.5	′ a O 1	
1 100	<.0 . 5 /1	3.4 5.5	4.0	<.5	3.5	<.5 2.5 <1 1.9	- د د ه ۱	·	ŀ
1 2-5	ナ・ゴー 1 / つ	2.8 .5 <1		.5 <1			, , 1<.		1
1 5 -10	7.0	4.3 1<2	4.4	1<2			1 12 <	· ~ ~ 1	1
312	) . <i>E</i>	10.2 2 <5	10.9	2 <5	, .	- ' ' '	7 15 <	10 50 6	
1 49	0	30.0 5 < 10				` - ^	0 1 3	10 0481	1
L N= 475	59 1 N=	49.5 ≥10	47.8	≥10 5	,,,,		5 1 N	= 940	
	_1	4858 N=	4909 I	N= 5	5919 !	N= 88	1		
		!	1			'			
Visibility Thre	sholds								Octo

Kodiak		Homer		Kenai		Anchorage	
VISIBILITY (NM)	3	VISIBILITY (NM)	<u> 3</u>	VISIBILITY (NM)	<u>z</u>	VISIBILITY (NM)	<u>z</u>
<.5	0.6	<.5	0.3	<.5	1.5	<.5	2.4
.5 <1	1.1	.5 <1	0.7	.5 <1	2.2	.5 <1	1.3
1<2	2.5	1<2	1.1	1<2	1.8	1<2	2.2
2 < 5	10.0	2 < 5	3.2	2 <5	3.5	2 < 5	3.€
5 < 10	31.6	5 <10	12.1	5 < 10	12.9	5 < 10	8.3
≥10	54.1	≧10	82.7	≧10	78.1	≥10	81.6
N=	24460	N=	18749	N=	21363	N=	23028
Valdez		Middleton		Cordova		Yekutet	
VISIBILITY (NM)	<u>%</u>	VISIBILITY (NM)	<u>3</u>	VISIBILITY (NM)	<u>%</u>	VISIBILITY (NM)	<u> </u>
< <b>.</b> 5	3.1	<.5	0.8	<.5	0.7	<.5	1.4
.5 <1	4.2	.5 <1	1.9	.5 <1	1.2	.5 <1	2.8
1<2	2.9	1<2	3.7	1<2	2.5	1<2	4.2
2 <5	10.3	2 <5	12.4	2 < 5	11.4	2 < 5	12.9
5 < 10	26.7	5 < 10	27.7	5 < 10	36.3	5 < 10	35.3
≥10	52.8	≥10	53.6	≥10	47.9	≥10	43.4
NΞ	5660	N=	10087	N=	22930	N=	18953
Sitke		Annette		Cape St. James		Tofino	
VISIBILITY (NM)	7.	V:SIBILITY (NM)	2	VISIBILITY (NM)	2	VISIBILITY (NM)	<b>₹</b>
<.5	0.3	<.5	1.3	<.5	5.0	<.5	3.5
.5 <1	0.5	.5 <1	1.1	.5 <1	2.3	.5 <1	5.2
1<2	1.1	1<2	2.6	1<2	3.2	1<2	4.2
2 < 5	9.1	2 < 5	9.9	2 < 5	8.2	2 < 5	9.8
5 < 10	42.2	5 < 10	26.2	5 < 10	24.4	5 < 10	32.6
≥1O	46.8	≧10	59.0	≥10	56.9	≥10	44.7
N=	21743	N=	18245	N=	20137	N=	15955
Quilfayute		Astoria		North Bend		Ocean Station Vessel	P
VISIBILITY (NM)	<u>7</u>	VISIBILITY (NM)	<u>z</u>	VISIBILITY (NM)	3	VISIBILITY (NM)	3
<.5	3.5	<.5	2.5	<.5	4.7	<.5	7.7
.5 <1	6.5	.5 <1	1.2	.5 <1	2.1	.5 <1	
1<2	4.4	1<2	2.5	1<2	5.6	1<2	3.7
2 < 5	15.8	2 < 5	8.7	2 < 5	13.1	2 < 5	10.3
5 < 10	56.8	5 < 10	32.7	5 < 10	46.1	5 < 10	60.1
≥1O	12.9	≥10	52.4	≥10	28.4	≥10	22.0
N=	6937	N=	17352	N=	18239	N=	7285
November		J [		l L		5 Visibility	Threshold

							11:13
Marine Area A		Marine Area B		Marine Area C		Marine Area D	<del></del>
VISIBILITY (NM)	<u>%</u>	VISIBILITY (NM)	<u>%</u>	VISIBILITY (NM)	3	VISIBILITY (NM)	ž
<.5	0.5	<.5	1.0	<.5	1.0	<.5	2.7
.5 <1	1.0	.5 <1	0.8	.5 <1	0.6	.5 <1	2.1
1<2	2.0	1<2	2.2	1<2	2.1	1<2	3.7
2 <5	9.0	2 <5	7.1	2 < 5	8.6	2 < 5	11.6
5 < 10	24.8	5 < 10	23.9	5 <10	23.7	5 < 10	32.0
≥10	62.7	≥10	65.0	≥10	64.0	≥10	47.9
N=	802	N=	3248	N=	1951	N=	7587
		·					
50 160		7(150:	140		130	Marine Area E	
		a solly				VISIBILITY (NW)	3
	1-2/	3,000				<.5	1.5
	VV (NM)		<del></del>			.5 <1 1 < 2	1.5 3.0
/ {	< 5	VV (NM) 3 VV (	NM) Z	v (NM) 3		2 < 5	9.0
/ / j	.5 <1 '.3	<.5 1.2	1 -	<.5 1.2	ļ	5 <10	27.5
1 / /	1-2	.5 <1 0.7 .5 <	*.*	<1 1.0		≥10	57.5
	2 < 5 10.1	1<2 2.4 16	,	<2 2.1		N=	9186
·	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	2<5 7.1 2<		<5 7.5 P	∑a	Marine Area F	
<i>i</i>	58 0	5 < 10 24.4 5 < 10	1	<10 21.7 1/6/	367	VISIBILITY (NM	. <b>5</b>
55° / N	2455	≥10 64.1 ≥10	65.6	≧10 66.5 N 4 Š		<.5	1.3
-	_ 1	N= 3088 N=	3548	N= 1449	5 30/2 h	.5 <1	1.8
· Vv a			ij		\$ 7.00 A	1 < 2 2 < 5	3.4 8.9
J WY CA	~ ~ ~	/ (NM)			(NM) 2 2	5 < 10	25.1
<.5 .5 <1	3.6	2 VV (N		-	- , , ,	≥10	59.4
1<2	<.6 ] 5	<1 2.0 (.5		<b>\.</b>	(.5 1.4 ) <1 1.3	) N=	4605
2 < 5	4.4 1 1.	2.0   .5 <		J	<2 3.0		
5 < 10	12.01 2		J.,	1 2	<5 9.2 ▮		
<i>∮</i> ≥10	33.4 5 <1 44.0 ≥10	0 47.6 5<10			<10 27.0	<u> </u>	
N=	4701	) 33.3 ≥10	31.2 5	,	≥10 58·¹ ¶		
50°	N=	10447 N=	5273		N= 4696	C 4	s distribution
VV (NM)	-		3/3			7	
<.5	Z VV (NA	0	+		VV (NM) 7	VV (NM) 2.0	V
1 5-1	4.21 /5	- VV (NM	- 1	<u> </u>	<.5 2.1	<.5 2.3	•
<i>i</i> 1 4	< 9   5	4.1 <.5	4.5	<.5 3.1		1.5 \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	1
1 7	7. 4 / 1	2.7 .5 <1		_	.5 <1 1.8 1 <2 2.7	1<2 7.7	1 /
1 5 -4- 11	. 3 / つ	5.0 1<2 12.5 2<5	4.5	1<2 3.7	3/5 8.8	30.1	, <b>1</b>
310	. fr d E	^ -		2 < 5 10.4	5 < 10 29.7	54.	
$\int_{1}^{1} \int_{1}^{1} \int_{1}^{1} dt = \frac{10}{421}$	≥10	40		, ,,,,	54.8 مرح	9266	
450	0 / N=	45.9 ≥10 4617 N=	45.8	≥10 50.2 N= 6294	N= 931	7   N-	
		/ N-	4816	N= 6294			1
						1	
					<u> </u>	<u> </u>	Novembe
Visibility Thres	snoias						MOAGUIDE

#### II-132

Kodisk		Homer	· · · · · · · · · · · · · · · · · · ·	Kenei		Anchorage	Anchorage		
VISIBILITY (NM)	3	VISIBILITY (NM)	<u>z</u>	VISIBILITY (NM)	3	VISIBILITY (NM)	3		
<.5	1.5	<.5	0.6	<.5	2.3	<.5	3.9		
.5 <1	1.8	.5 <1	1.6	.5 <1	4.0	.5 <1	2.4		
1<2	3.2	1<2	2.0	1<2	3.1	1<2	3.6		
2 < 5	11.4	2 < 5	4.6	2 < 5	5.1	2 < 5	5.4		
5 < 10	33.1	5 < 10	13.7	5 <10	14.5	5 < 10	10.9		
≥10	48.9	≥10	77.4	≥10	71.1	≥10	74.5		
N=	24314	N=	19355	N=	22093	N=	23806		
Vaidez		Middleton		Cordova		Yakutat			
VISIBILITY (NM)	7	VISIBILITY (NM)	7	VISIBILITY (NM)	<u>7</u>	VISIBILITY (NM)	<u>z</u>		
<.5	3.7	<.5	1.5	<.5	1.4	<.5	3.2		
.5 <1	5.2	.5 <1	1.9	.5 <1	2.3	.5 <1	4.7		
1<2	3.5	1<2	4.9	1<2	3.7	1<2	5.4		
2 < 5	11.0	2 < 5	11.9	2 < 5	12.6	2 < 5	13.1		
5 < 10	25. <i>2</i>	5 < 10	26.5	5 < 10	35.6	5 < 10	35.2		
≥10	51.4	≥10	53.4	]] ≥10	44.5	≥10	38.4		
N=	5710	N=	10415	N=	23806	N=	19586		
-		<u> </u>				][			
Sitke		Annette		Cape St. James		Tofino			
VISIBILITY (NM)	<b>%</b>	VISIBILITY (NM)	<u>7</u>	VISIBILITY (NM)	2	VISIBILITY (NM)	3		
<.5	0.8	<.5	0.7	<.5	5.5	<.5	4.3		
.5 <1	1.2	.5 <1	1.7	.5 <1	3.4	.5 <1	6.9		
1<2	2.2	1<2	3.3	1<2	4.2	1<2	5.6		
2 < 5	12.2	2 < 5	12.4	2 < 5	10.4	2 <5	11.1		
5 < 10	43.2	5 < 10	24.7	5 < 10	26.5	5 < 10	31.5		
≧10	40.4	<u>≥</u> 10	57.2	≥10	50.0	≥10	40.5		
N=	22493	N=	18842	N=	20793	N=	16612		
Quilleyute		Astoria		North Bend		Ocean Station Vessel P			
VISIBILITY (NM)	<u> 7</u>	VISIBILITY (NM)	<u>z</u> .	VISIBILITY (NM)	<b>%</b>	VISIBILITY (NM)	5		
< <b>.</b> 5	4.0	<.5	2.8	<.5	3.1	<.5	3.7		
.5 <1	6.8	.5 <1	2.0	.5 <1	1.7	.5 <1	2.2		
1<2	5.0	1<2	3.9	1<2	5.1	1<2	4.0		
2 < 5	17.6	2 <5	10.1	2 < 5	12.7	2 < 5	11.6		
5 < 10	54.2	5 < 10	34.4	5 < 10	49.1	5 < 10	57.7		
≥10	12.4	≥10	46.7	≥10	28.3	10 ≥10	20.8		
N=	7164	N=	17961	N=	18838	N=	7426		
11-		H K		i I		11			

VISIBILITY (NM)	<u>%</u>	VISIBILITY (	NM) %		VISIBILITY (N	M) %		ISIBILITY (NM)	-
<.5	2.0	<.5	1.3		<.5	1.1	•	<.5	₹ 3.1
.5 <1	1.1	.5 <1	1.5	- 11	.5 <1	1.3		5 <1	3.0
1<2	2.7	1<2	2.7		1<2	2.9	11	1<2	5.2
2 < 5	9.6	2 < 5	2.7 8.U	[]	2 <5	9.2		2 <5	12.9
5 < 10	27.3	5 < 10	23.6		5 < 10	26.6	11	<10	34.0
≥10	57.3	≥10	62.9		2 < 10 ≥10	58.8		≥10	41.8
N=	553	N=	2866	- 11	N=	1790		N=	6610
11-	7,7,3	14	2800		14—	1790			0010
<b>6</b> 0 160		/(150	14	0		130	Mari	ne Area E	
	- >/	Soll S					,	VISIBILITY (NW)	3
E-1	1-27	3/0	$\mathcal{L}$					<.5	2.5
1 / Ng	VV (NM)	1	<del></del>	<b>_</b>	7			.5 <1 1 < 2	1.7 3.6
1 / /	I < 5	VV (NM)	VV (NM) %	VV (NM)	3 1			2 < 5	9.6
11 1 1	.5 < 1	<.5 1.4		<.5	1.4			5 < 10	31.5
11-5	1<2 1.6	.5 <1 1.6		.5 <1	1.6	j.		≥10 N=	51.2 8699
Marin	- 13	2.6	1<2 2.8	1<2	2.5	1 g		N-	0099
	10 24 - 1	2 < 5 7.9	2<5 7.9	2 < 5	8.7 1	<del>-</del>		Marine Area F	
1	25 0	` · · · ·	5 < 10 26.1	5 < 10	26.4	7 80°		VISIBILITY (NW)	<b>š</b> ;
35.	V= 1714	. 00.2		≥10	59.3 № 5			<.5	1.9
1		N= 2809	N≈ 3229	N=	1397			.5 <1 1 < 2	1.6
VV	NAO -							2 < 5	8.8
<.5	- · · · ·	V (NM)				VV (NM) Z		5 < 10	25.5
.5 <1	4.2	- I	VV (NM) %	VV (NM	- 1	<.5 1.5		≥10	58.8
1<2	J.6 . 5		<.5 3.8	<.5	2.3	.5<1 1.5			4330
2<5	<sup>3</sup> .8 1.	<2 4.6	.5 <1 2.4	.5 <1	1.6	1<2 3.3	* **		
5 < 10	'J.8' 7		1<2 3.9 2<5 11.4	_	3.6 <sub>1</sub> 9.3 <sub>1</sub>	2<5 9.2			1
≥10	35.9 5 < 36.6 ≥10			5 < 10	30.11	5 × 10 28.3		8	
N= N=	4420	28.7	≥10 44.9		53.1 <b>I</b>	>10 50.2		1 -	İ
F	N=	10203 i	N= 4947		6668			7	1
VV (NM)				1			1	- % \	
1 <.5	Z VV (NA	1) 2	VV (NM) %	}. =		VV (NM)	vv ()   <.		
1 2 1	6.8 <.5	6.5		<u>VV (NN</u>	4.3	1 5 2.6	1.5	2.3	
1 ' ' < /	6	3.5	<.5 5.6 5.6 5.6	<.5	7 7	1 5 (1 2.4		3.4	`.
2<5	5.1 1<2 3.1 2<5	5.5	1<2 4.6	.5 <1 1 <2	4.9	1<2 4.2	1		``
5 <10 29 ≥10 10	2 < 5		2 < 5 13.0		11.3	1 2 2 3	15	<10 30.9	
1 N 40	. 0 1	29.6 5	<10 31.5			15<10	7 1 3	≥10 52.0 ≥10 7298	1
387	70   N=	42.3	≥10 42.6		46.4	1 ≥10 49.	· .	N= 1290	
		4216	N= 4568		5961	! N= 913	<u> </u>		-
1		· !		! <i>_</i>					
E Marie Th		<del></del>				· 			Danaski
5 Visibility Thres	snoids								December

Marine Area C

Marine Area A

# Map 6. Cloud amount

BLACK LINE – Percent frequency of total cloud amount  $\leq 2/8$ .

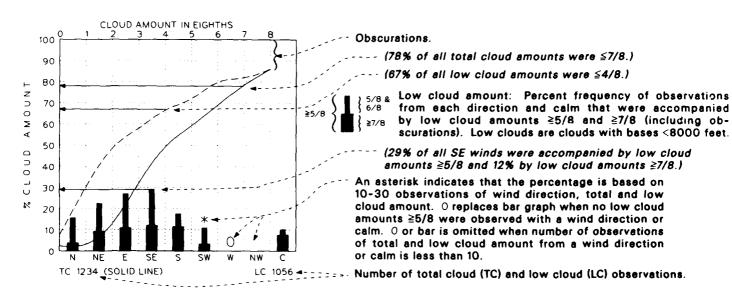
BLUE LINE - Percent frequency of low cloud amount  $\geq 5/8$ .

Albers Equal—Area Conic Projection

### Graphs: Cloud cover/wind direction

Total Cloud Amount )
Low Cloud Amount >

Cumulative percent frequency of indicated cloud amount equal to or less than the amount intersected by the curve.

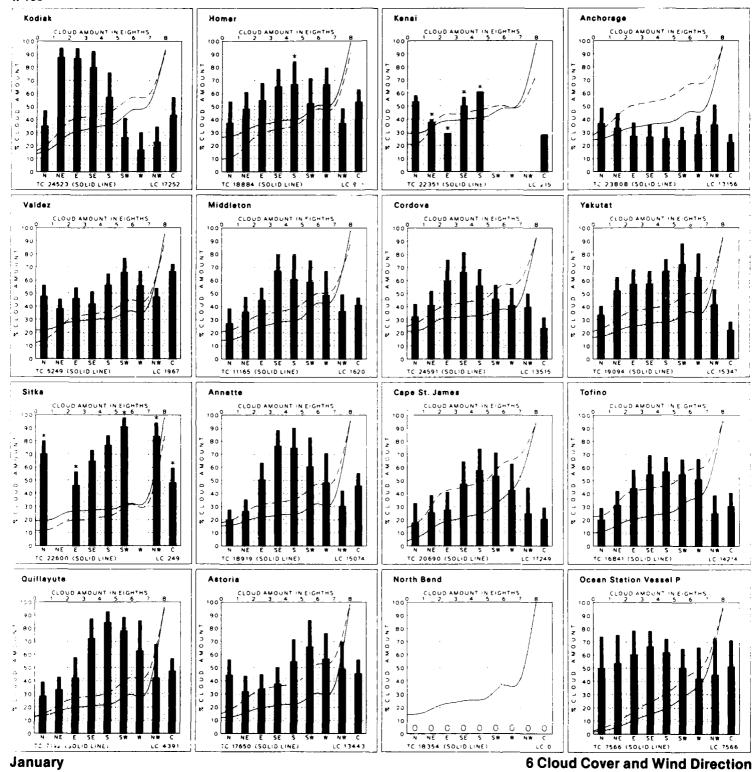


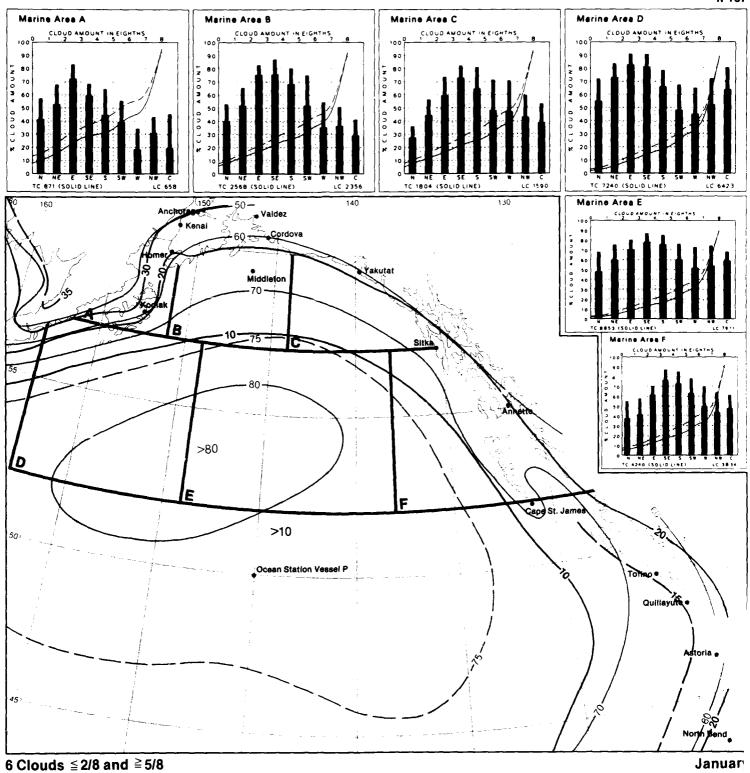
A survey of the cloud data (total and low cloud amounts) from the marine data base shows the number of total cloud reports significantly greater than that of low cloud amounts. This is because many of the early marine observations contain only total cloud amounts. Therefore, somewhat different samples may be used to compute the two curves on the graph. This may lead to inconsistencies where the low cloud amount appears higher than the total cloud amount. Where this occurred, the graph was adjusted in favor of the total cloud by making the curves coincide. The frequency of obscured conditions may be determined from the graph by subtracting the cumulative percent frequency on the curve corresponding to 8/8 coverage from 100%. In computing the bar graph, obscurations are considered as 8/8 coverage.

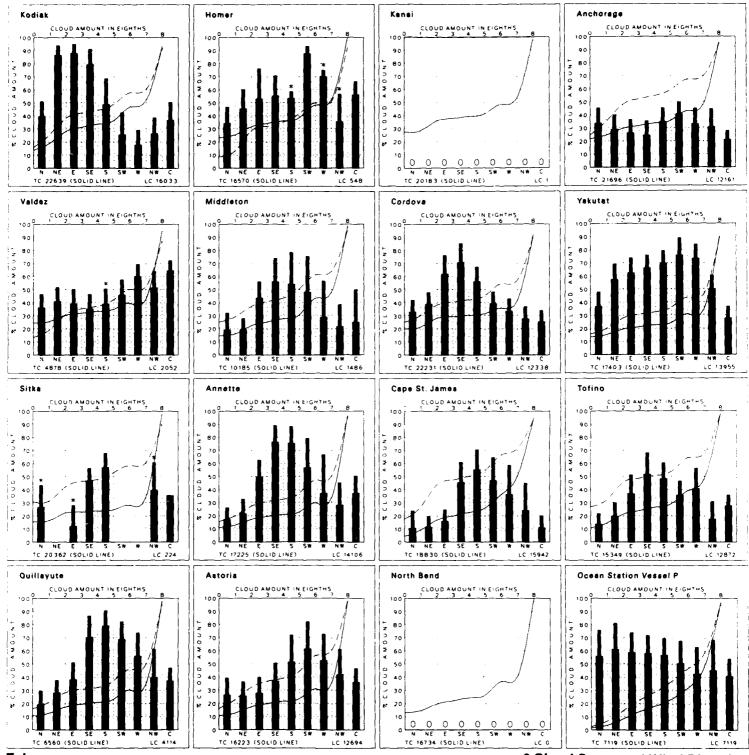
For the two isopleth presentations (total cloud amount  $\leq$  2/8 and low cloud amount  $\geq$ 5/8), only those observations reporting both total and low cloud amounts were summarized. This helps eliminate problems introduced as a result of different size data sets. A comparison of total cloud analyses based on satellite data by the U.S. Department of Commerce and U.S. Air Force (1971) shows a fairly close agreement with, and bolsters the confidence in, the marine cloud statistics presented in this atias. Refer to the texts in Sets 3 and 4 for additional information on clouds.

6 Legend

Legend 6

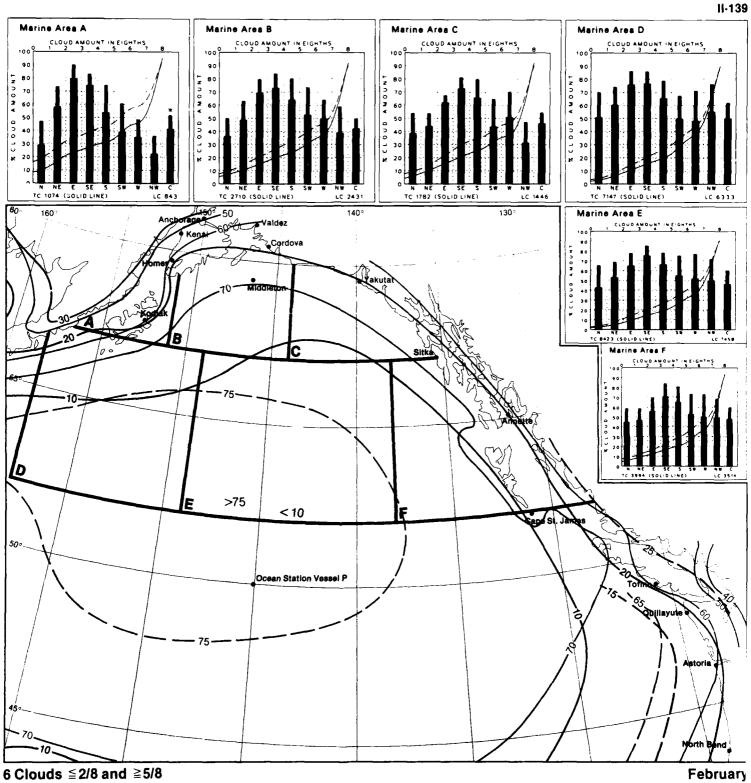




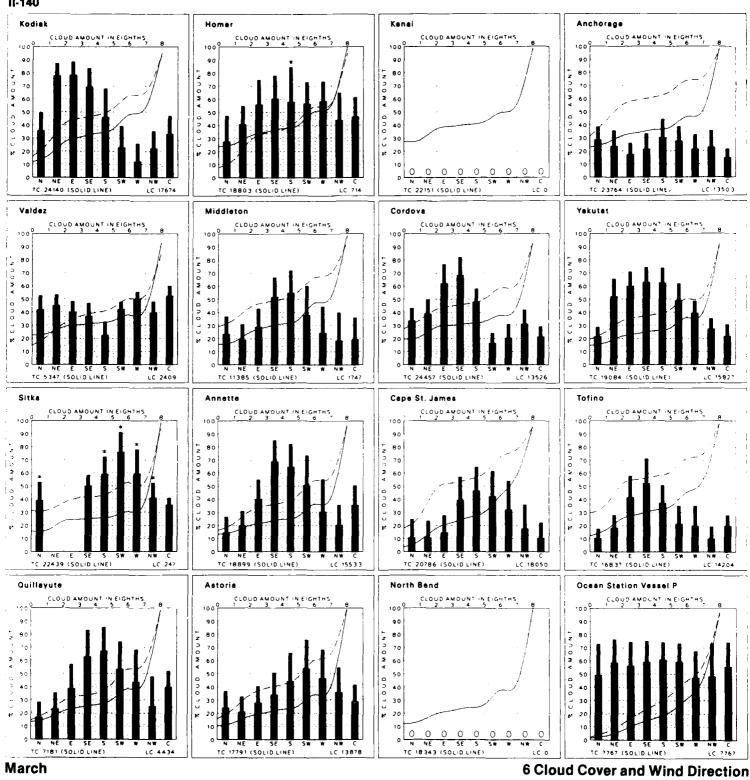


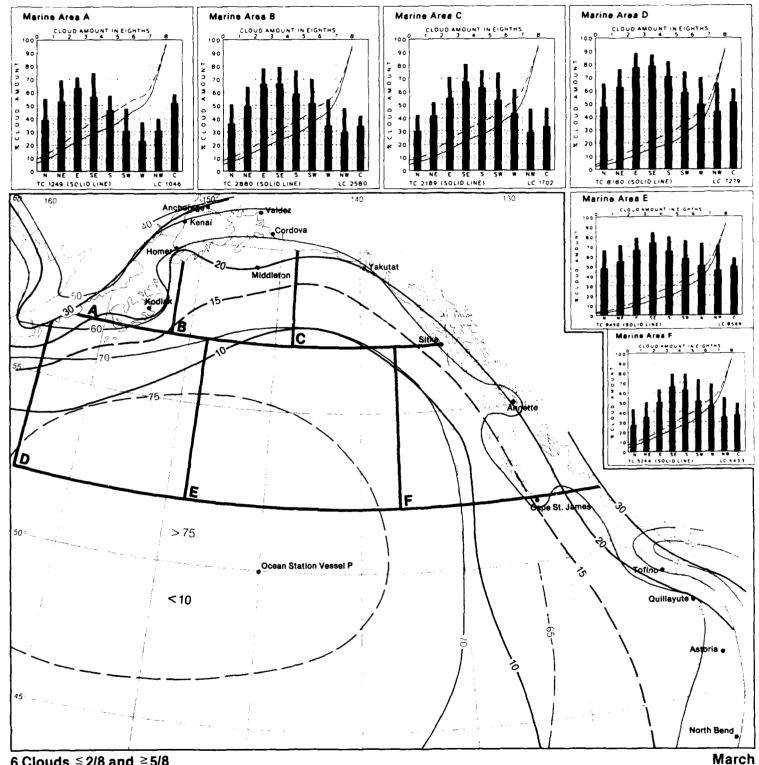
**February** 

**6 Cloud Cover and Wind Direction** 

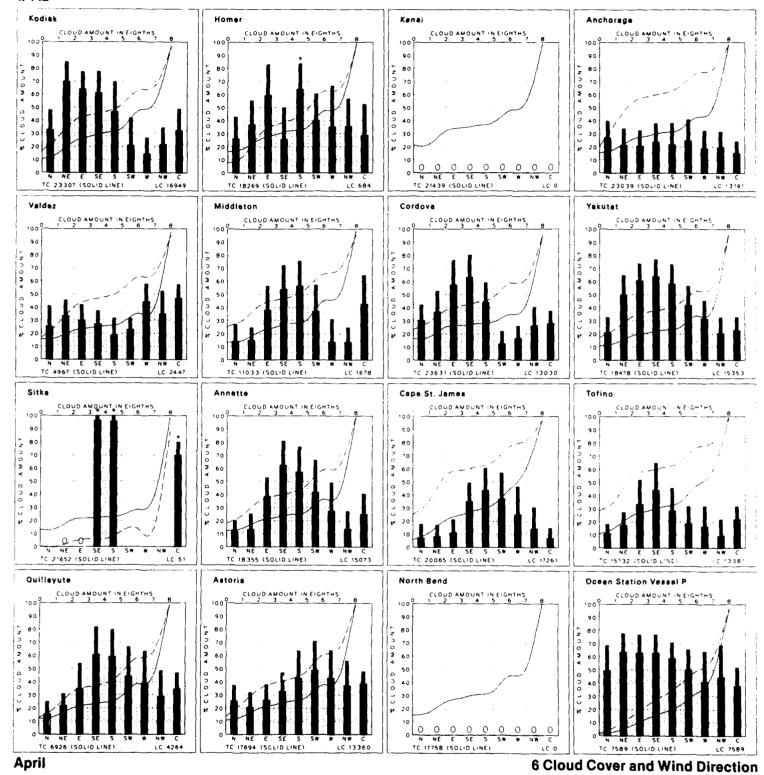


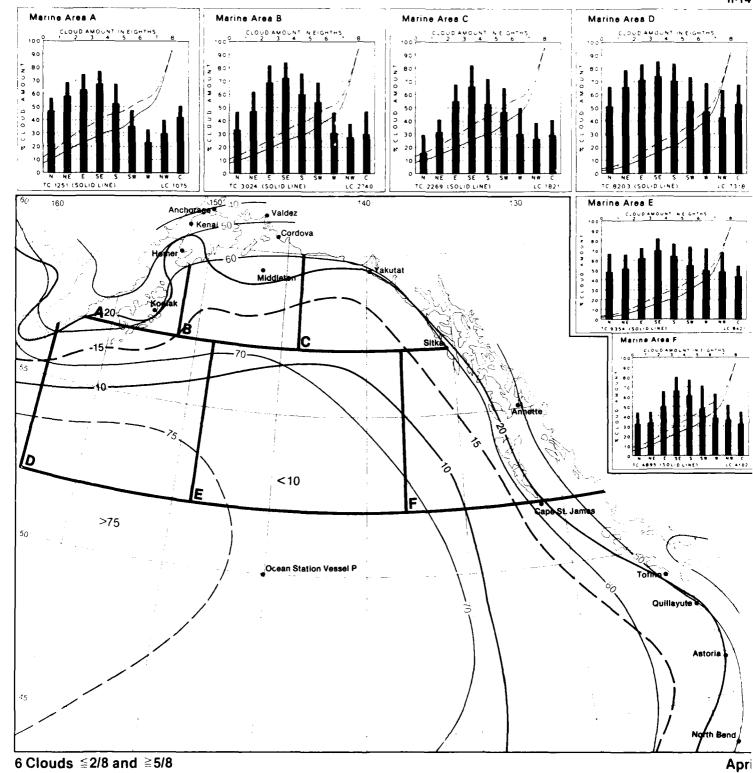
6 Clouds ≤ 2/8 and ≥ 5/8

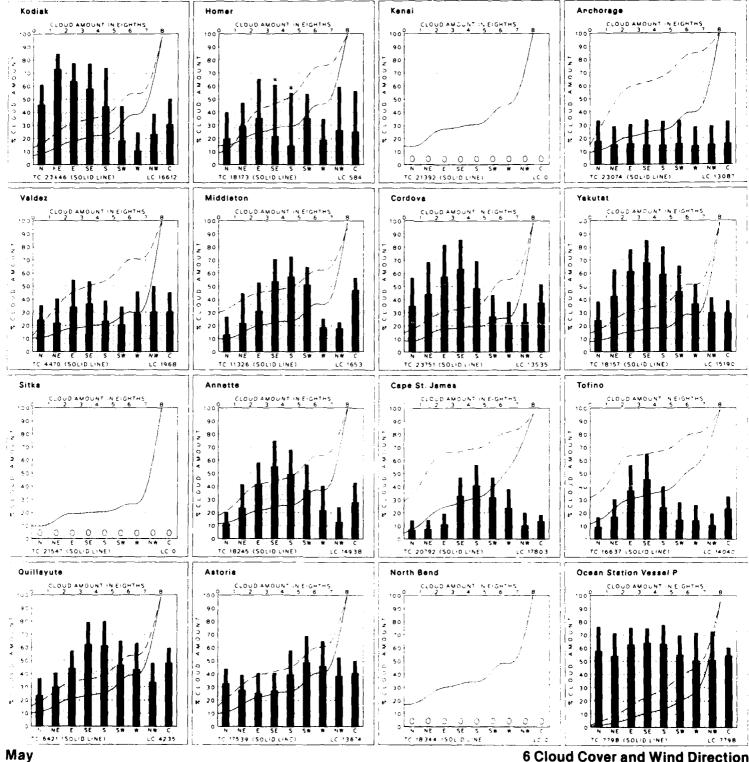




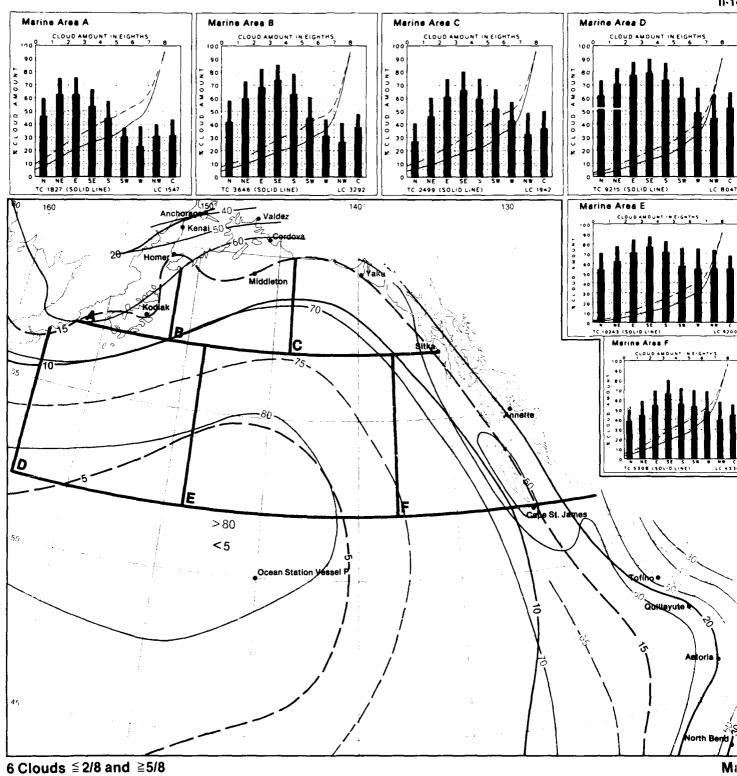
6 Clouds ≤ 2/8 and ≥ 5/8

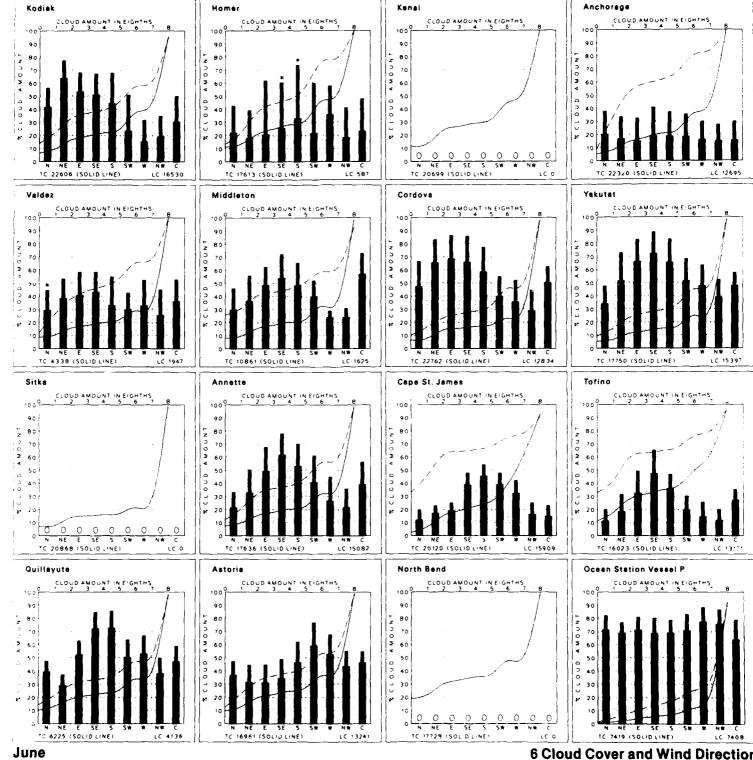




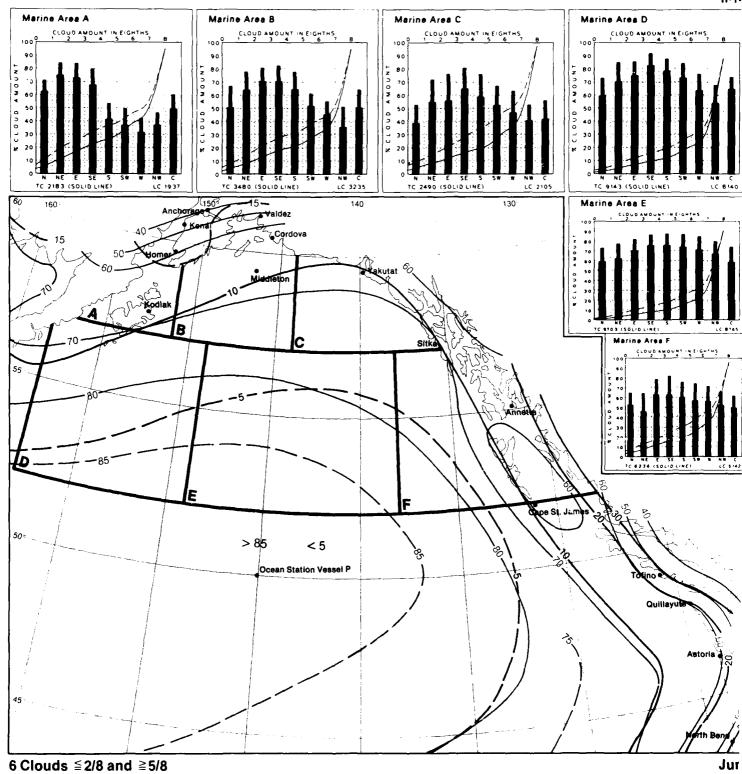


**6 Cloud Cover and Wind Direction** 

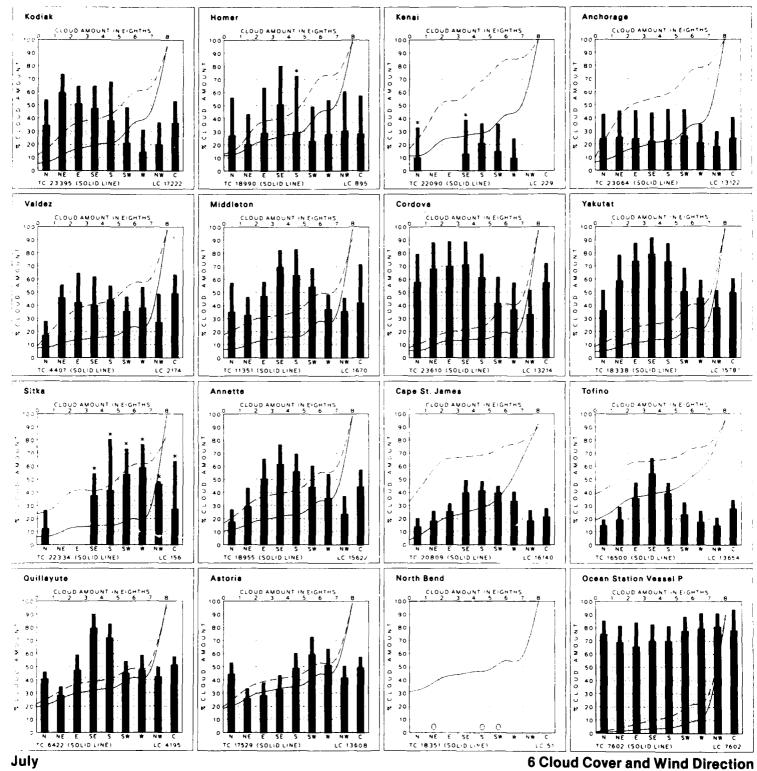


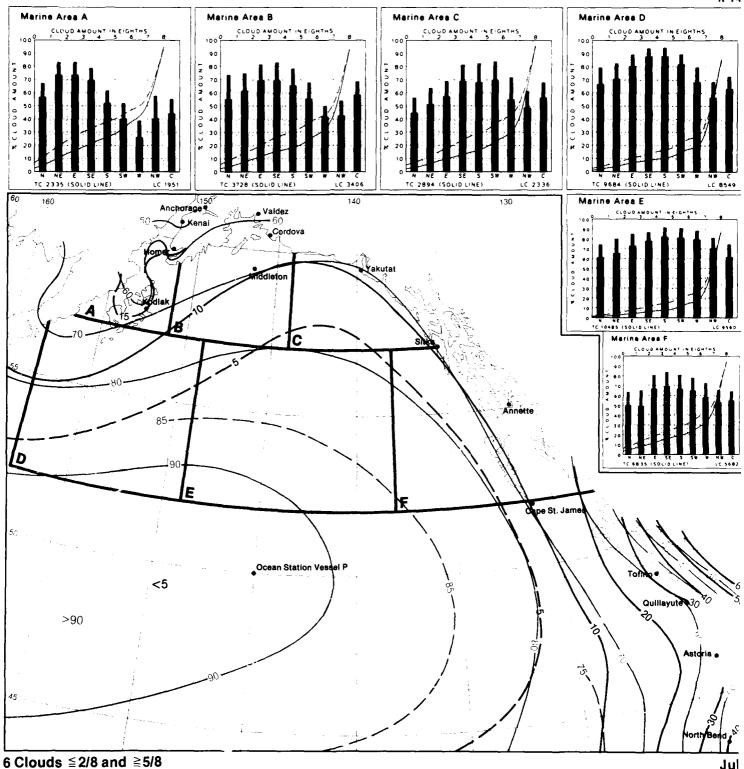


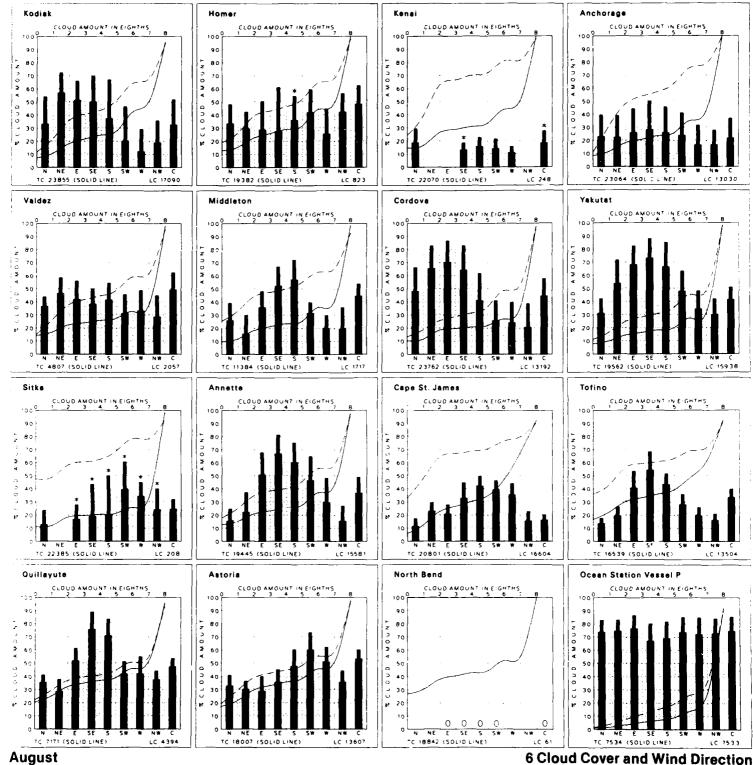
**6 Cloud Cover and Wind Direction** 



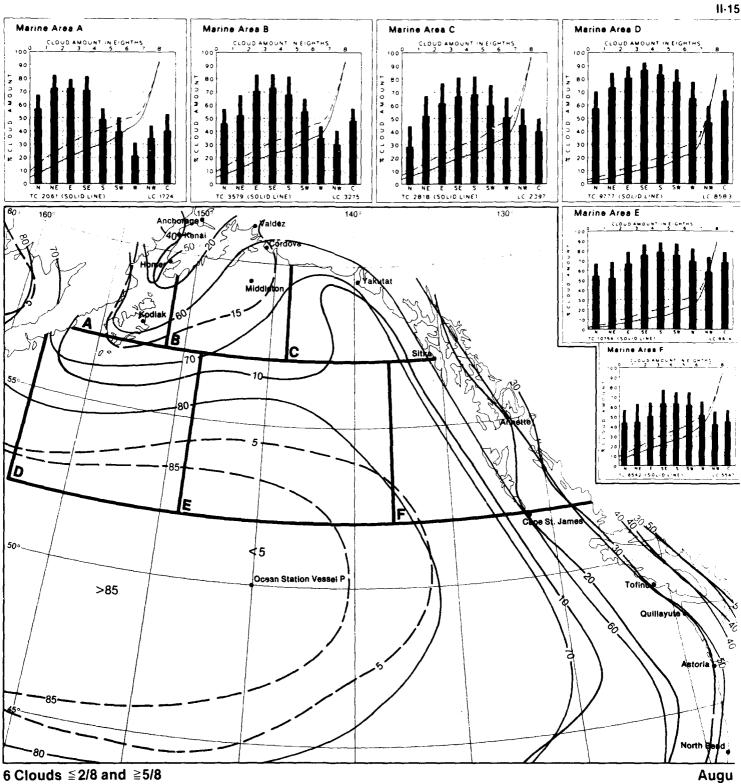
6 Clouds ≤ 2/8 and ≥ 5/8

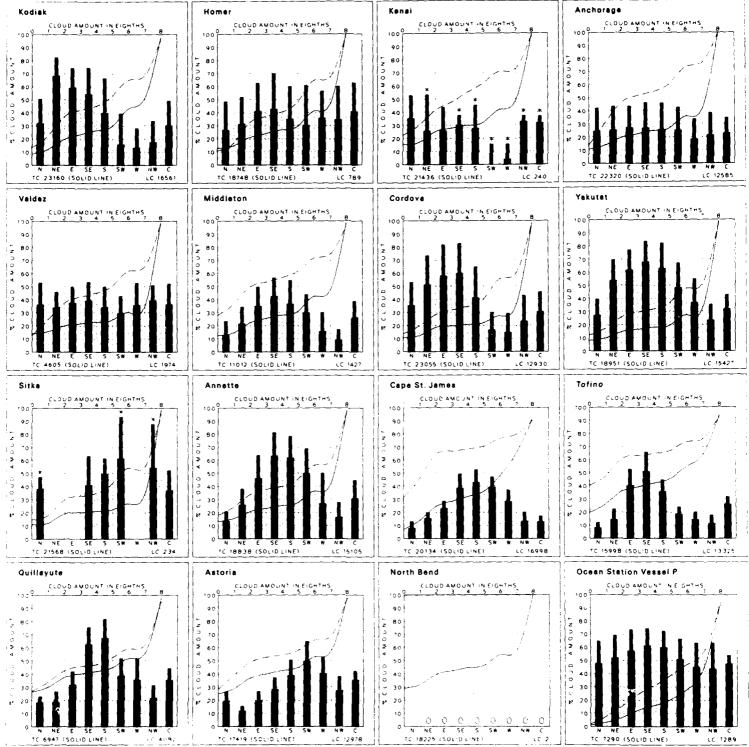






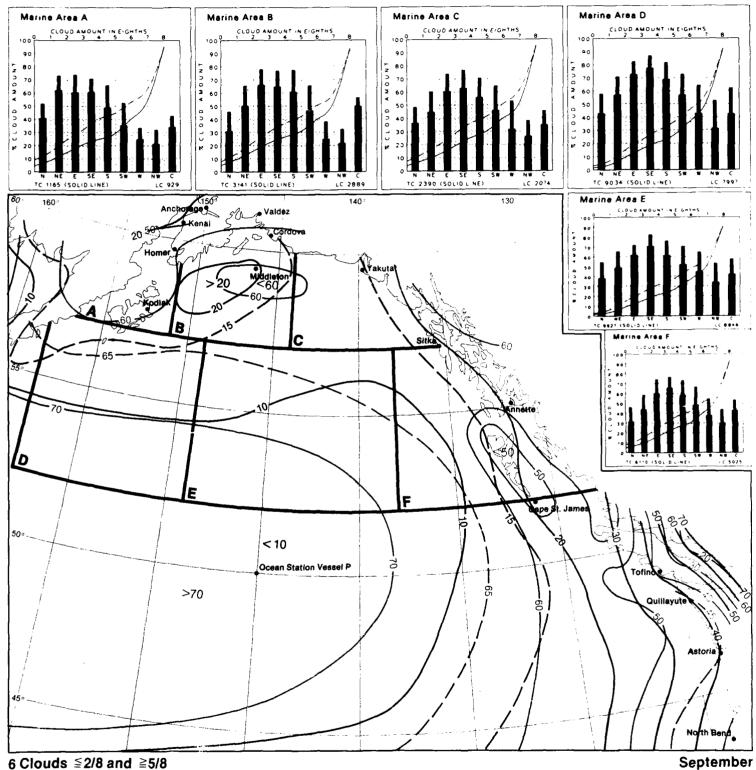
**6 Cloud Cover and Wind Direction** 

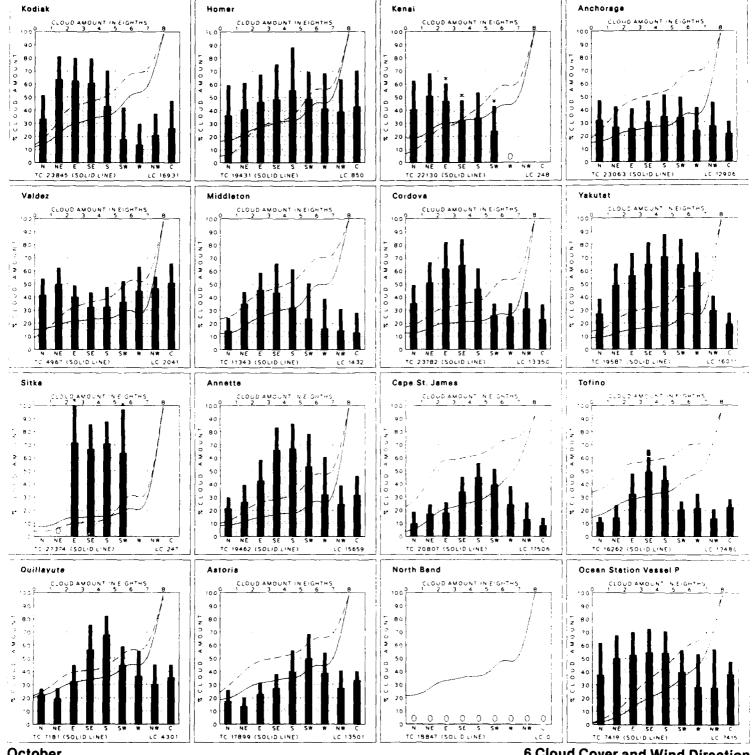




September

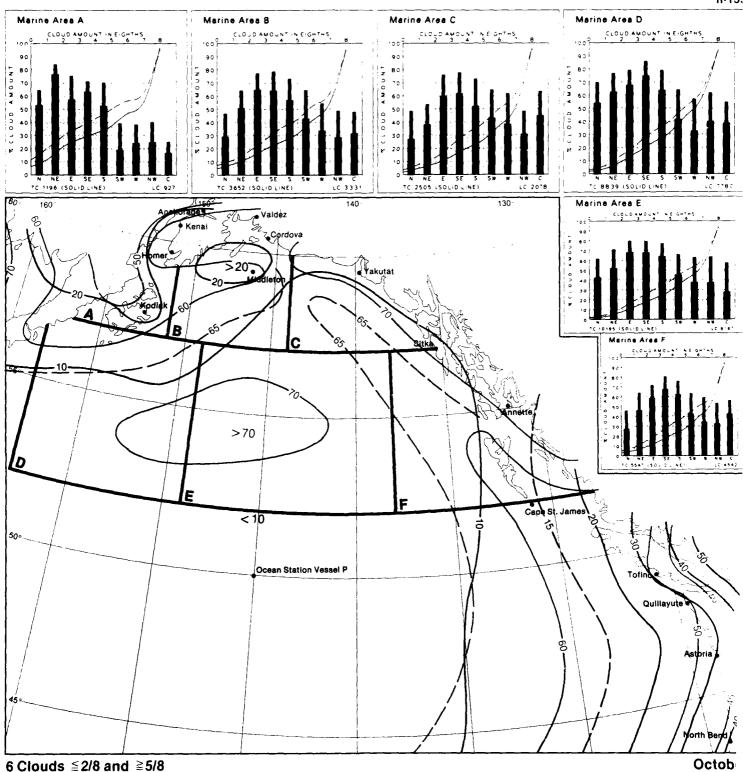
6 Cloud Cover and Wind Direction

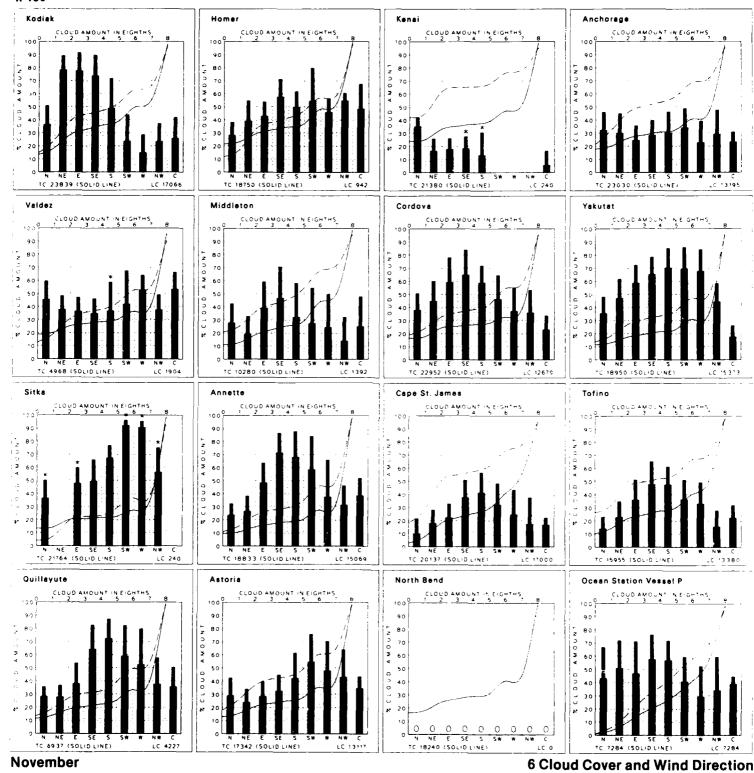


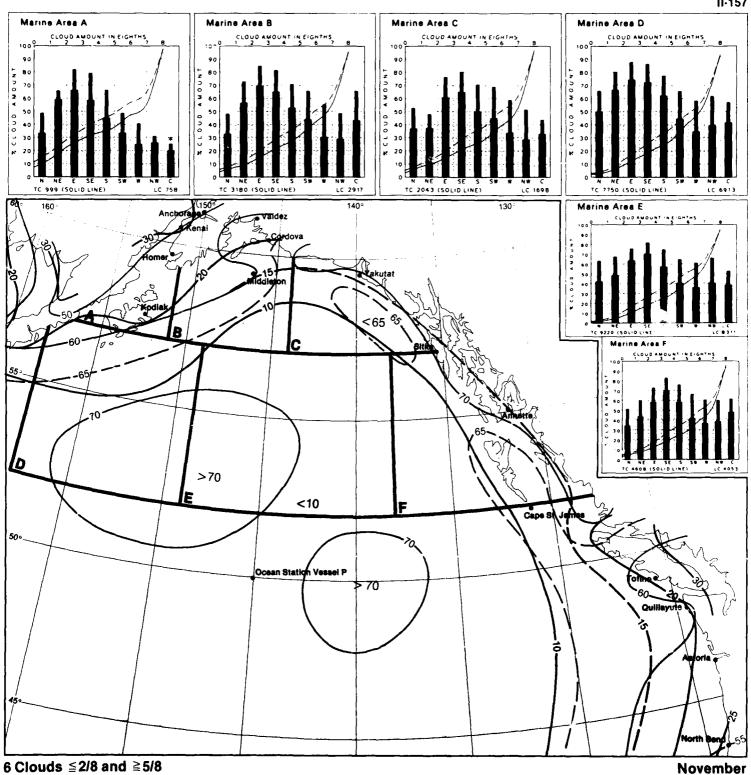


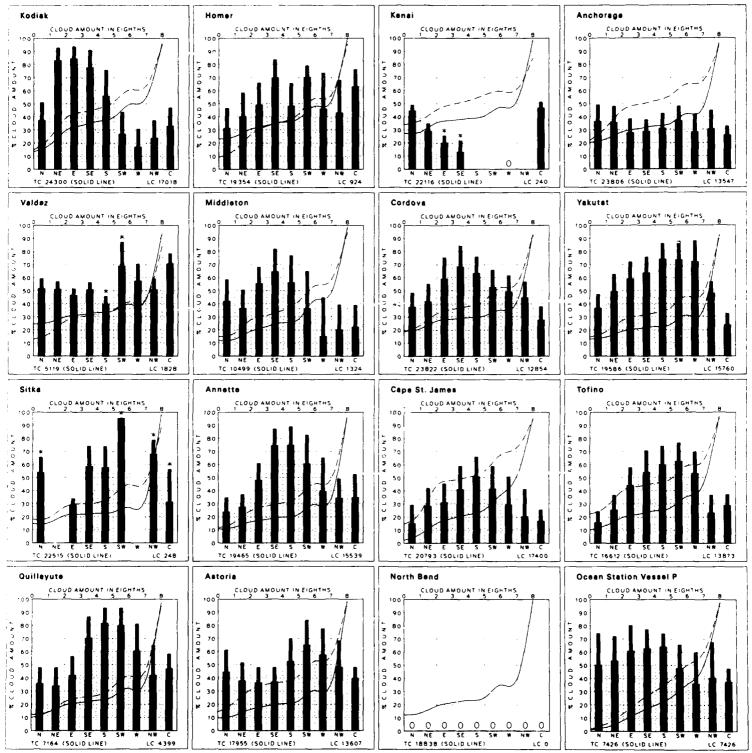
October

**6 Cloud Cover and Wind Direction** 



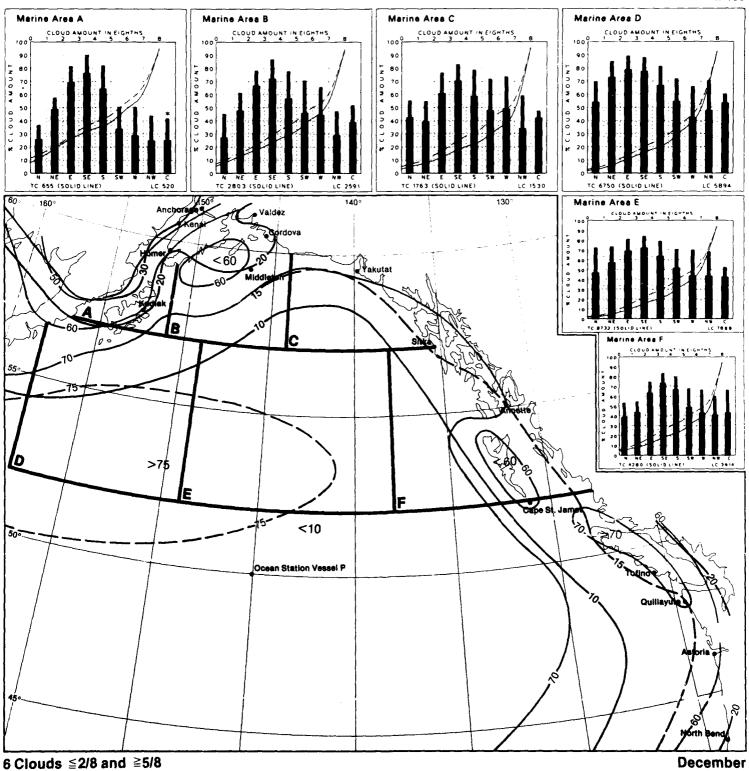






December

6 Cloud Cover and Wind Direction



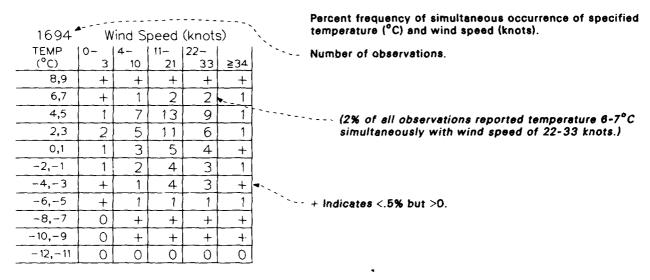
# Map 7. Air temperature extremes (°C)

BLACK LINE — Maximum (99%) air temperature (1% of temperatures were greater than the given value).

BLUE LINE – Minimum (1%) air temperature (1% of temperatures were equal to or less than the given value).

Albers Equal-Area Conic Projection

### Graphs: Air temperature/wind speed



Air temperature is one of the elements most frequently observed by mariners. On many ships, the heating effect of the ship's structure has a tendency to produce higher than actual ambient air temperature readings because of instrument exposure. This is especially true under calm, sunny conditions. Despite the inaccuracies, the large-scale patterns and mean gradients of the isopleth analyses are relatively accurate.

The temperature scale of the graphs varies in both range and class interval. The graph can be used to determine the extent of human discomfort from the combined effects of extreme heat or cold and winds, or to estimate the likelihood of superstructure icing. Refer to Section I of this atlas for detailed information on superstructure icing and wind chill.

7 Legend Legend 7

Kodiek					
25140	Wi	nd Sp	eed	(kno	ts)
TEMP	0-	4-	11-	22-	1 1
(°C)	3	10	21	33	≥34
<b>≩</b> 8	0	+	+	+	0
6,7	<b>F</b> +	1	1	+	+
4,5	1	3	4	1	+
2,3	4	9	8	1	+
0,1	5	8	7	2	+
-2,-1	3	4	2	1	+
~4,-3	3	4	3	ī	+
-6,-5	1	2	2	1	+
~8,-7	1	2	_ 2	1	+
-10,-9	+	1	2	1	+
<u>§</u> -11	+	2	2	1	+

н	mer					
	18884	Wi	nd Sp	eed	(kno	ts)
	TEMP	10-	4-	11-	22-	
_	(°C)	3	10	21	33,	≥34
	≩4	+	2	2	+	0
	2,3	2	5	3	+	+
	0,1	4	6	2	+	0
	-2,-1	3	5	1	+	0
	-4,-3	5	6	1	+	0
-	-6,-5	3	4	1	+	+
	-8,-7	4	5	1	+	0
	-10,-9	4	5	1	+	Ô
	-12,-11	2	3	1	+	0
	-14,-13	2	4	1	+	0
	≨15	2	8	1	+	0

Α.	,,,,,,					
	22288	Wi	nd Sp			ts)
	TEMP	0 -	4-	11-	22-	1 1
	(°C)_	3	10	21	33	≥34
	<b>≥</b> -2	2	12	9	+	0
	-4,-3	2	5	4	+	0
	-6,-5	1	4	2	+	_+
	-8,-7	2	4	2	+	0
	-10,-9	2	4	2	+	+
	-12,-11	1	3	1	+	+
	-14,-13	2	4	1	+	+
	-16,-15	2	2	1	+	0
	-18,-17	2	2	+	+	+
	-20,-19	3	2	+	+	+
	<u>≤</u> -21	10	7	+	0	0

Anchorage	•				
23808	Wi	nd Sp	eed	(kno	ts)
TEMP	0 -	4 -	11-	22 -	1 1
(°C)	3	10	21	33	≥ 34
<b>≩</b> 0	2	7	3	+	9
-2,-1	2	4	+	0	0
-4,-3	3	6	+	+	( c
-6,-5	2	5	+	+	+
-87	3	6	1	+	_ +
-10,-9	4	5	'	+	+
-12,-11	3	3	1	+	+
-14,-13	4	4	1	+	+
-16,-15	3	2	1	+	+
-18,-17	4	2	1	+	<u>ā</u>
≦-19	10	4	+	+	0

Valdez					
5847	Wi	nd Si	eed	(kno	ts)
	0 -	4 -	11-	22-	i .
(°C)	3	10	21	33	≩34
≥4	0	+	+	0	0
2.3	1	2	1	0	0
0,1	13	8	2	+	0
-2,-1	5	4	1	+	0
~4,-3	4	6	2	+	0
-6,-5	2	3	1	+	0
~87	3	5	3		0
- 10,-9	2	4	3	1	+
-12,-11	1	3	3	+	0
-14,-13	1	3	3	1	+
§-15	1	4	4	+	+

Aiddleton					
16657	Wii	nd Sp	eed	(kno	ts)
TEMP	10 -	4-	11-	22 -	1
(°C)	3	10	21	33	≥34
≥ 10	0	0	Ċ	0	0
8,9	0	0	0	+	+
6.7	+	+	3	2	+
4,5	1	3	8	4	1
2.3	2	10	13	5	1
0,1	3	10	. 8	3	1
-2,-1	1	3	3	2	+
-4,-3	+	2	3	2	+
-6,-5	+	1	2	1	+
-8,-7	+	+	1	1	+
≦-9	0	+	1	+	+

٠.	310048					
	25152	Wii	nd Sp	eed	(kno	ts)
	TEMP	0 -	4 -	31-	22-	l
	(°C)	[ 3]	10	21	33	≩ 34
	≥4	1	4	4	+	0
	2,3	2	7	4	+	+
	1,0	6	8	3	+	+
	-2,-1	1	3	1	+	0
	-4,-3	5	3	1	0	0
	-6,-5	4	2	+	+	0
	-8,-7	5	2	+	+	0
	-10,-9	6	2	+	+	0
	-12,-11	4	1	+	0	0
	-14,-13	5	1	+	0	0
	<u>≤</u> -15	11	1	+	0	+
-						

Yakutat					
19089	e wi	nd Sp	eed	(kno	ts)
TEMP	10 -	4 -	111-	22-	
(°C)	3	10	21	33	≥ 34
≥6	+	+	1	+	<u> </u>
4,5	+	2	2	+	+
2,3	1	7	4		-
0,1	4	11	4	1	+
-2,-1	3	4	2	+	+ ;
-4,-3	4	6	2	+	+
-6,-5	3	4	1	+	0
-87	3	4	1	+	
-10,-9	3	2	1	+	0
-12,-1	3	1	1	+	0
≦-13	8	3	1	+	

Sitke					
22511	Wii	nd Sp	eed	(kno	ts)
TEMP	10 - 1	4-	[11-	22 -	1 1
(°C)_	3	10	21		≥ 34
≥ .0	0	+	1	+	+
8,9	+	+	2	+	+
6,7	+	3	5	1	+
4.5	2	7	5	1	+
2,3	5	10	4	+	+
0,1	7	10	3	+	+
-2,-1	4	5	2	+	0
-4,-3	4	4	!	+	+
-6,-5	2	2	1	+	0
-8,-7	1	2	. 1	+	0
<u>\$</u> −9	1	3	2	+	+

Annette					
18347	Wi	nd Sp	eed	(kno	ts)
(°C)	0 - 3	4-	11-	22 -	≥34
≥ 10	+	+	1	+	+
8,9	+	+	1	+	+
6,7	+	3	6	_ 2	+
4,5	1	5	7	2	+
2.3	3	10	7	_ 2	+
0,1	4	9	4	1	+
-2,-1	2	4	2	+	+
-4,-3	2	4	2	+	0
-6,-5	1	2	1	+	0
-8,-7	1	3	1	+	0
≦-9	+	4	2	+	+

Cape St. James										
20701	20701 Wind Speed (knots)									
TEMP	10-	4-		22-	1					
(°C)	3	10	21	33	≥34					
≥ 14	0	0	0	0	0					
12,13	0	0	0	0	0					
10,11	70	+	+	+	+					
6,9	+	+	1	2	1					
6,7	1	3	9	12	6					
4,5	T	5	9	7	4					
2,3	1	6	7	4	2					
0,1	+	2	3	2	1					
-2,-1	+	1	1	1	+					
-4,-3	+	1	1	1	+					
<u>≨</u> -5	+	+	1	1	1					

Tofino					
16842	Wi	nd Sp	eed	(kno	ts)
TEMP	0-	4 -	111-	22-	l
(°C)	3	10	21	33	≥ 34
≥12	+	+	+	+	0
10,11	4	1	1	+	+
8,9	_1	4	4	-	+
6,7	5	9	5	1	+
4,5	6	7	3	+	+
2.3	9	9	2	+	+
0.1	8	8		+	٥
-2,-1	4	3	+	С	0
-4,-3	.2	2	+	0	0
-6,-5	1	1	+	0	0
<u>≨</u> 7	1	+	+	0	0

Quillayute					
7192	Wi	nd Sp	peed	(kno	ts)
TEMP	0 -	4 -	11-	22 - 1	1 1
_(°C)	3	10	21	33	≩ 34
≥ 14	+	+	+	0	0
12,13	+	+	+	0	0
10,11	1	4	1	+	0
8.9	2	9	3	+	0
6,7	5	13	3	+	0
4,5	6	7	1	+	0
2,3	5	8	1	0	0
C.1	7	7	1	0	0
-2,-1	3	3	+	_0	0
-4,-3	3	2	+	0	0
<u>≤</u> -5	2	1	_ +	_0	0

Ast	oria					
	17635	₩i	nd Sp	eed	(kno	ts)
	TEMP	0 -	4-	11-	22 -	1 1
_	(°C)	3	10	21	33	≥34
	≥ 14	+	+	+	0	0
	12,13	+	1	1	+	+
	10,11	1	4	6	1	+
	8,9	2	8	4	+	+
_	6,7	4	12	4	+	+
_	4,5	3	8	2	+	0
	2,3	4	9	1	+	0
	0,1	4	7	1	+	0
_	-2,-1	1	3	1	+	0
_	-4,-3	1	2	+	+	0
_	<b>≨</b> -5	+	1	+	+	0

North Ben	đ				
18327	Wi	nd Sp	seed	(kno	ts)
TEMP	10 -	4-	11-	22-	1 1
(°C)	3	10	21	33	≥34
≥ 16	+	+	+	+	0
14,15	+	1	1	+	0
12,13	1	4	3	. +	+
10,11	2	10	5	+	+
8,9	2	10	3	+	+
6,7	2	14	4	+	+
4,5	1	9	2	+	+
2,3	1	9	2	+	+
0,1	Ī	5	1	+	+
-2,-1	1	2	+	+	+
≨-3	+	. 1	+	+	0

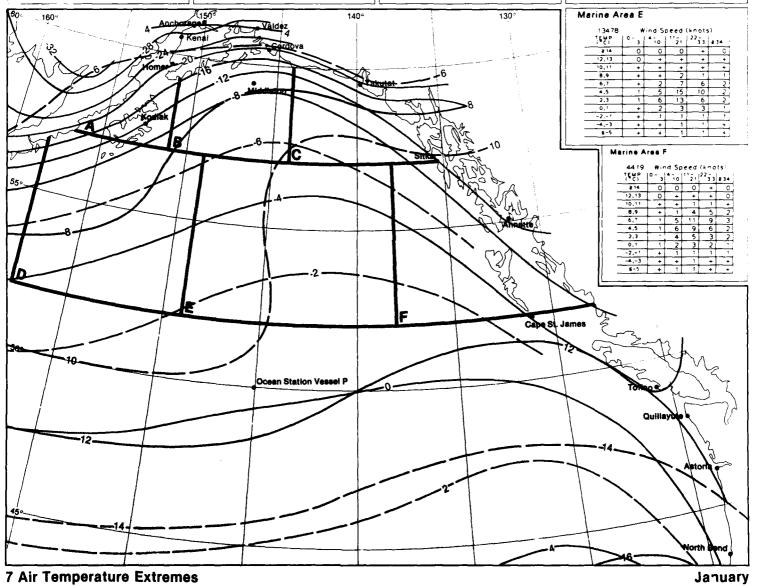
Ocean Station Vessel P						
	7539	Wie	nd Sp	eed	(knc	ts)
	TEMP	0-	4 -	11-	22-	
	(°C)	3	10	21	33	≥ 34
	≥ 14	0	0	_0	0	0
	12,13	0	0	0	0	0
	10,11	0	0	+	+	0
	8,9	+	+	+	2	1
	6,7	+	2	12	16	5
	4,5	1	4	15	12	4
	2.3	1	3	7	6	3
	0,1	+	+	2	2	1
	-2,-1	+	+	+	+	+
	-4,-3	0	0	0	0	+
	≨-5	0	0	0	0	0

Marine Ar	*** A				
1347	Wi	nd Sp	eed	(kno	ts)
TEMP	0-	4-	11~	22-	
(°C)	3	10	21	33	≩34
₹12	+	+	0	0	0
10,11	+	+	0	0	+
8,9	0	+	+	+	0
6,7	1	1	3	1.	+
4,5	2	6	13	8	1
2,3	2	8	15	4	1
0,1	2	3	4	3	1
-2,-1	1	2	2	1	+
-4,-3	1	1	2	1	+
-6,-5	1	1	1	1	+
≦-7	1	1	1	1	1

2978	Wii	nd Sp	eed	lkno	ts)
TEMP	0-	4 -	11-	22-	1
( <u>, (, )</u>	3	10	21	3 3	≥34
≥12	0	_ 0	+	0	0
10,11	+	+	+	+	+
8,9	+	+	+	+	+
6,7	+	1	3	2	1
4,5	1	6	10	6	3
2,3	3	10	12	6	3
0,1	1	4	7	3	1
-2,-1	+	2	3	1	1
-4,-3	+	1	2	1	1
-6,-5	+	+	1	1	+
<b>≤</b> -7	0	+	1	+	+

arine Al	ea C				
2618	Win	nd Sp	eed	(kno	ts)
TEMP	0-	4-	11-	22	1 1
(°C)	3	10	21	33	≥34
≩12	+	+	+	+	+
10,11	+	+	+	+	+
8,9	+	+	1	+	+
6,7	+	_3	_ 5	5	1
4.5	1	6	17	9	3
2,3	. 2	6	7	5	2
0,1	1	2	4	2	1
-2,-1	+	1	1	2	+
-4,-3	+	1	2	1	+
-6,-5	0	+	1	1	+
≦-7	_+	+	1	1	1
	2618 TEMP (°C) ≥12 10,11 8,9 6,7 4,5 2,3 0,1 -2,-1 -4,-3 -6,-5	2618 Wi TEMP 0- (°C) 3 ≩12 + 10,11 + 8.9 + 6.7 + 4.5 1 2.3 2 0,1 1 -2,-1 1 -4,-3 + -6,-5 0	TEMP (°C) 3 10 \$12 + + 10,11 + + 10,11 + + 6,7 + 3 4,5 1 6 2,3 2 6 0,1 1 2 -2,-1 + 1 -4,-3 + 1 -6,-5 0 +	2618 Wind Speed  TEMP   0 -   4 -   11 -   (°C)   3   10   21    \$12   + +     10,11   + +   +   8,9   +   1   6,7   +   3   5   4,5   1   6   17   2,3   2   6   7   0,1   1   2   4   -2,-1   +   1   1   -4,-3   +   1   2   -6,-5   0   +   1	2618 Wind Speed (kno remains of the speed (k

Marine Ar	ea D					
10999	Wir	nd Sp	eed	(kno	ts)	
TEMP (°C)	0 - 3	10	11-	22 ~ 3 3	≥34	
≥ 12	0	. 0	+	+	+	
10,11	+	+	+	+	+	
8,9	0	+	+	+	+	
6,7	+	1	3	2	[ 1]	
4,5	+	5	17	11	3	
2,3	1	8	17	10	2	
0.1	+	2	4	3	1	
-2,-1	+	1	1	1	1	
-4,-3	+	+	1	1	+	
-65	+	+	+	+	+	
<u>≨-7</u>	+	+	+	+	+	



K	odiek					
	23004	Wii	nd Sr	eed	(kno	ts)
	TEMP	10 -	4-	11-	122-	1 1
	(°C)	3	10	_ 21	33	≩34
	8≨	+	+	+	+	0
	6,7	+	1	1	+	+
	4,5	1	3	3	+	0
	2,3	4	9	8	1	+
	0,1	6	10	8	1	+
	-2,-1	3	4	3	1	+
	-4,-3	2	4	4	1	+
	-6,-5	1	2	2	1	+
	-8,-7	1	3	3	1	+
	-10,-9	+	2	2	1	+

н	omer					
	16568	Wii	nd Sp	eed	(kno	ts)
	TEMP	10-	14-		22-	1 1
	(°C)	3	10	21	33	≥ 34
	≩4	+	2	1	+	0
	2,3	2	5	3	+	+
	0,1	5	7	3	+	0
	-2,-1	4	5	2	+	0
	-4,-3	5	6	2	+	0
	-6,-5	3	4	1	+	0
	-8,-7	4	5	1	+	0
	-10,-9	3	5	1	+	0
	-12,-11	1	4	- 1	+	0
	-14,-13	1	4	1	+	0
	<u>≨</u> -15	3	4	+	+	0

 ,					
20112	Wi	nd Sp	eed	(kno	ts)
TEMP	0-	4 -	11-	22 -	1
(°C)_	3	_10_	21	3.3	≥ 34
≩0	1	9	6	+	0
-2,-1	<u>-</u>	4	3	+	0
-4,-3	2	6	4	+	0
-6,-5	2	4	2	+	0
-8,-7	2	5	2	+	+
-10,-9	2	5	2	+	+
-12,-11	1	3	1	+	+
-14,-13	2	4	1	+	+
-16,-15	2	3	+	+	+
-18,-17	2	2	+	+	0
≨-19	8	6	+	0	0

21694	Wi	nd Sp	eed	(kng	15/
TEMP	0 -	4 -		22-	
(°C)	3	10	21	33	≥ 34
₹2	1	3	3	+	0
0,1	2	5	1	+	0
-2,-1	2	5	1	+	C
-4,-3	4	8		+	+
-6,-5	3	5	1	+	_+
-87	4	7	1	+	_+
-10,-9	4	6	1	+	+
-12,-11	2	3	1	+	_0
-14,-13	3	4	1	+	+
-16,-15	2	2	1	+	+
≨-17	7	4	1	+	+

٧٠	ldez					
	5684	Wii	nd Sp	eed	(kno	ts)
	TEMP	0-	4 -	111-	22 -	1 1
	(°C)	3	10	21	33	≥34
	≩4	+	+	+		0
	2,3	2	_ 2	1	+	+
_	0,1	12	9	2	+	0
	-2,-1	8	6	1	+	÷
	-4,-3	5	6	2	+	+
	-6,-5	2	4	2	+	0
	-8,-7	2	5	3	+	+
	-10,-9	2	5	4	1	0
_	-12,-11	1	_ 3	2	+	+
_	-14,-13	+	2	3	+	+
_	≨-15	+	1	1	+	0

Middleton					
14795	Wii	nd Sp	eed	(kno	ts)
TEMP	0-	4 -	11-	22-	1
(°C)	3	10	21	33	≥34
≥ 10	0	٥	0	0	0
8.9	0	0	0	0	0
6,7	+	+	+	+	+
4,5	1	3	7	4	+
2,3	2	10	15	6	1
0,1	3	10	9	3	+
-2,-1	1	3	4	1	+
-4,-3	+	3	3	1	+
-6,-5	+	1	3	1	+
-8,-7	+	1	1	+	+
≦-9	+	+	+	+	0

Cordova					
22724	Wi	nd Sp	eed	(kno	ts)
TEMP	10-	4-	111-	22-	}
(°C)	3	10	21	33	≥34
<b>≩</b> 6	T +	1	1	+	0
4,5	1	4	2	+	0
2,3	3	8	4	+	0
0,1	7	10	3	+	0
-2,-1	6	4	1	+	0
-4,-3	6	4	1	+	0
-6,-5	4	2	+	0	0
-8,-7	5	2	+	+	+
-10,-9	4	1	+	+	0
-12,-11	3	1	}	0	0
≦~13	10	1	+	0	+

17403	wii	nd Sr	eed	(kno	(s)
TEMP	10-	4-		22~	
(°C)	3	10	21	33	≥34
<b>≗</b> 8	+	+	+	+	0
6,7	+	+	_+	+	+
4,5	+	2	2	+	+
2.3	2	7	4.	1	+
0,1	6	14	6	1	+
-2,-1	4	6	2	+	C
-4,-3	5	6	2	+	+
-6,-5	2	3	1	+	+
-8,-7	3	3	1	+	_0
-10,-9	2	1	. 1	+	.0
≦-11	5	2	1	+	0

10,11 + + + +	.
(°C) 3 10 21 33 ≩3 ≩ 12 + + + + + 10,11 + + + +	۱ ا
₹12 + + + + 10,11 + + + +	4
10,11 + + + +	
	ŧ]
	0
8.9   + 1 2 +	+
6,7 1 3 6 1	+]
4,5 2 7 7 1	+
2,3 6 13 6 +	5]
0,1 7 10 4 +	2
-2,-1 4 4 1 +	+]
-4,-3 2 3 1 +	+]
-6,-5 1 1 1 +	+]
≦-7 1 2 1 +	╗

Annette					
16712	Wi	nd Sp	eed	(kno	ts)
	0-	4-	11-	22 -	1
(°C)	3	10	21	33	≥34
≥12	+	+	+	+	0
10,11	+	+	+	+	0
8,9	+	1	1		+
6,7	1	5	7	1	+
4,5	1	7	8	2	+
2,3	3	12	9	3	+
0,1	3	10	6	1	+
-2,-1	1	4	2	+	0
-4,-3	1	3	1	+	0
-6,-5	+	1	1	+	+
<u>≤</u> -7	+	2	1	+	0

C	Cape St. James								
	18845	Win	nd Sp	eed	(kno	ts)			
	TEMP (°C)	0-3	4-	11- 21	22 - 33	≥ 34			
	≥ 14	0	0	0	0	0			
	12,13	0	0	0	0	0			
	10,11	+	+	+	+	+			
	8,9	+	1	1	2	+ 12/6			
	6,7	1	4	11	13	6			
	4,5	1	5	9	9	4			
	2,3	1	5	8	5	2			
	0,1	+	2	3	2	1			
	-2,-1		+	+	+	+			
Ì	-4,-3	+	+	7	+	+			
	≨-5	0	+	+	+	+			

North Bend

15351	Wir	nd Sp	eed	(kno	ts)
TEMP	10- 1	4 -	11-	22-	ì i
(°C)_	] 3	10	21	33	≥34
≥ 14	+	+	+	0	0
12,13	+	+	+	+	0
10,11	-	2	1	+	+
8,9	5	7	5	1	+
6,7	6	13	_7	_ 1	_0
4,5	6	9	3	+	+
2,3	7	9	2	+	+
0 1	6	5	+	+	0
	2	.2	+	0	0
- ,-3	1	+	0	0	0
<b>≦</b> -5	+	+	0	0	0

Quilleyute								
6558	Wi	nd Sp	eed	(kno	ts)			
TEMP	10 -	4-	11-	22-	1 1			
(°C)	3	10	21	33	≩34			
≥ 14	+	+	+	0	0			
12,13	+	1	+	0	0			
10,11	+	5	2	+	0			
8,9	1	11	3	0	0			
6,7	5	16	3	+	0			
4,5	4	11	2	+	0			
2,3	6	9	1	0	0			
0,1	6	5	+	0	0			
-2,-1	2	1	0	0	0			
-4,-3	1	1	0	0	0			
≨~5	+	+	0	0	0			

16219	Wil	nd Sp	eed	(kno	ts)
TEMP	0-	4-	11-	22-	1
(°C)	3	10	21	33	≥34
≩ 16	+	+	+	+	0
14, 15	+	1	+	+	0
12,13	+	2	2	+	+
10,11	1	7	5	1	+
8,9	3	10	5	+	0
6,7	5	14	5	+	+
4,5	4	8	2	+	+
2,3	4	7	1	+	0
0,1	3	4	+	+	0
-2,-1	1	1	+	+	0
≨-3	+	1	+	0	0

		,	(kno	15/
0-	4-	11-	22-	i
3	10	21	33	≥34
	+	+	0	Ō
+	+	+	+	0
+	1	1	+	Ö
1	5		+	0
2	11	6	+	0
2	11	5	+	+
3	14	4	+	+
_2	8	1	+	_0
1	7	1	+	0
1	3	+	0	0
+	1	+	0	0
	3 + + 1 2 2 3	3 10 + + + + 1 1 5 2 11 2 11 3 14 2 8 1 7	3 10 21 + + + + + + + + 1 1 1 5 ~ 2 11 6 2 11 5 3 14 4 2 8 1 1 7 1	3 10 21 33 + + + + 0 + + + + + 1 1 1 + 1 5 - + 2 11 6 + 2 11 5 + 3 14 4 + 2 8 1 + 1 7 1 + 1 3 + 0

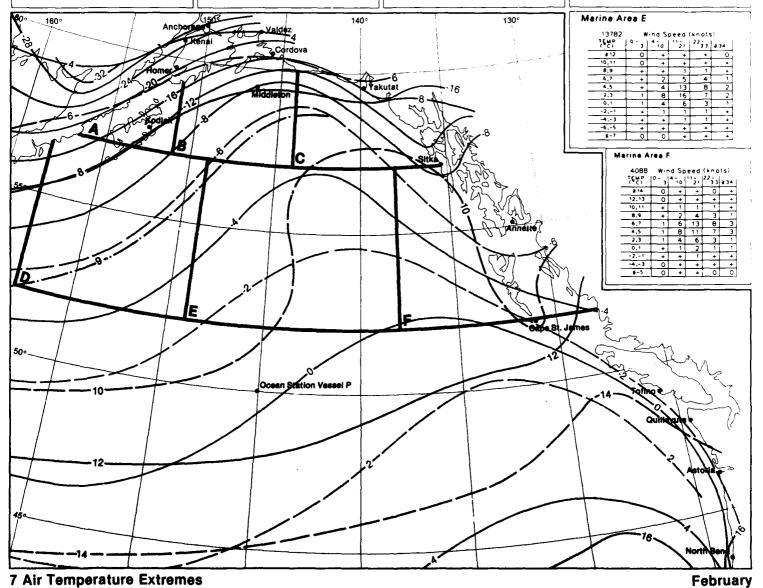
O	Ocean Station Vessel P								
	7080	Wii	nd Sp	eed	(kno	ts)			
	TEMP	0-	4-	11-	22-	1 1			
	(°C)	3	10	21	33	≥34			
	≩ 14	0	0	0	0	0			
	12,13	0	0	0	0	0			
	10,11	0	0	0	0	0			
	8,9	0	+	_+	_ +	+			
	6,7	+	2	9	12	5			
	4,5	1	5	17	16	_ 5			
	2,3	1	3	. 7	7	3			
	0,1	+	+	2	2	1			
	-2,-1	0	+	+	+	+			
	-4,-3	0	0	0	+	0			
	≨-5	0	0	+	+	+			

Marine Area A								
1658		nd Sp	eed	(kno	ts)			
TEMP	0 -	4 -	11-	22 -	l 1			
(°C)	3	10	21	33	≩34			
<u>≩</u> 10	+	+	+	0	+			
8,9	+	+	+	+	+			
6,7	1	1	1	+	_+			
4,5	2	3	4	3	1			
2,3	2	6	11	8	3			
0,1	2	5	7	2	1			
-2,-1	+	1	5	1	+			
-4,-3	+	2	3	1	+			
-65	+	1	3	1	+			
-8,-7	0	1	4	2	1			
<u>≨</u> -9	0	+	2	2	1			

Marina Area B										
	3574 Wind Speed (knots)									
	TEMP	0-	4-	11-	22-					
	(°C)_	3	10	21	33	≥34				
	≥ 10	0	+	+	+	+				
	8,9	0	+	+	+	+				
	6,7	+	1	2	2	1				
	4,5	$\overline{1}$	4	В	5	2				
	2,3	2	7	10	6	3				
	0,1	2	7	6	3	1				
	-2,~1	1	4	5_	1	1				
	-4,-3	1	2	2		+				
	-6,-5	+	2	1	1	+				
	-8,-7	0	1	1	+	+				
	≨-9	0	1	1	+	+				

M	Marine Area C										
	2656	Wi	nd Sp	eed	(kno	ts)					
	TEMP	0~	4-	11-	122 -						
	(°Ç)	3	10	21	33	≥34					
	≥12	+	0	+	+	+					
	10,11	+	+	+	+	+					
	8,9	+	+	1	+	+					
	6,7	1	2	4	6	1					
	4,5	1	7	12	8	2					
	2 3	2	9	12	5	2					
	0,1	1	5	6	2	1					
	-2,-1	+	1	2	1	+					
	-4,-3	+	+	1	1	+					
	-6,-5	+	+	+	+	+					
	<b>≤</b> -7	+	+	+	+	+					

Marine Area D									
9778 Wind Speed (knots)									
	0-	4 -	11 -	22-	1				
(°C)	3	10	21	33	≩34				
_ ₹12	+	_+	+	0	0				
10,11	0	_+	+	+	+				
8,9	0	+	+	+	+				
6,7	+	1	3	2	+				
4,5	+	5	10	8	2				
2,3	1	8	17	11	2				
0,1	1	4	7	4	1				
-2,-1	+	1	2	2	1				
-4,-3	+	+	1	1	1				
-6,-5	+	+	+	1	1				
≦-7	+	+	+	1	1				



Kodiek					
24 7 30	Wi	nd Sp	eed	(kno	ts)
	0 -	4-		22-	1 1
(°C)	3	10	21	33	≥34
≩ 10	+	+	_ +	+	_0
8,9	+	+	+	+	0
6,7	+	2	1	+	+
4,5	1	4	4	+	+
2,3	4	11	9	1	+
0,1	6	10	8	2	+
-2,-1	2	4	3	1	+
-4,-3	2	4	3	1	+
-6,-5	1	2	2	1	+
-8,-7	1	2	_ 2	1	+
≦-9	1	2	2		+

Н	mer					
	18800	Wii	nd Sp	eed	(kno	ts)
	TEMP (°C)	0-3	4 - 10	11 - 21	22 - 33	≥34
-	≩8	+	+	+	0	0
-	6,7	+	1	1	+	0
_	4,5	1	3	1	+	0
	2,3	4	9	4	+	0
_	0,1	6	10	3	+	0
	-2,-1	4	7	2	+	0
	~43	5	7	2	+	0
_	-6,-5	3	4	1	+	_0]
-	-8,-7	2	4	1	+	0
	-10,-9	1	_3	1	+	0
-	≨-11	2	5	1	+	0

K	nai					
	22095	Wii	nd Sp	eed	(kno	ts)
	TEMP	0 -	4 -	11 ~	22 -	
	_(°C}	3	10	21	33	≥34
	≥4	+	3	1	0	0
	2,3	1	5	. 3	+	+
	0,1	2	9	5	+	0
	-2,-1	2	7	3	+	0
	-4,-3	3	8	3	+	0
	-6,-5	2	5	2	+	+
	-8,-7	2	5	2	+	0
	-10,-9	2	4	1	+	+
	-12,-11	1	2	+	+	0
	-14,-13	1	2	+	+	0
	≨-15	4	6	+	+	0

23764	₩.	nd Sp	eed	1400	ts,
TEMP	0 -	4 -	11-	122 - 1	
<u>(°C)</u>	3	16	2,	33	₹34
₹6	+	1	•	+	. 9
4,5	1	2		•	۲,
2,3	2	7	2	•	
0.1	4	10	1	•	
-2,-1	3	8		•	
-4,-3	4	3			- 1
-65	3	6		_ +	
-8,-7	3	6			- :
-10,-9	3	4		-	
- 12,~11	2	2	•		
≤-13	5	4	1	+	

Valdez					
6167	Wii	nd Sp	beed	(kno	ts)
TEMP	0-	4 -	111-	22-	i
(°C)	3	10	. 21	33	≥ 34
8	+	+	+	0	0
6.7	+	1	+	+	0
4,5	2	_2		+	0
2,3	7	6	1	+	0
0,1	18	13	2	+	0
-2,-1	7	7	1	+	0
-4,-3	7	.7	2	+	_0
-6,-5	3	3	1	0	0
-8,-7	2	2	1	+	+
-10,-9	+	1	1	+	0
≦-11	+	1	. 1	+	+

Middieton					
16534	Wil	nd Sp	eed	(kno	ts)
TEMP	10-	4 -	11-	22 -	1
(°C)	3	10	21	3 3	≥ 34
≥ i 2	0	0	0	0	0
10,11	0	0	0	0	0
8,9	0	+	0	0	0
6.7	+	1	1	+	+
4,5	1	4	7	2	+
2,3	3	14	17	5	1
0,1	4	11	8	3	1
-21	1	_ 3	2	1	+
-4,-3	+	2	3	+	+
-6,~5	+	1	1	+	0
<u>≨</u> -7	+	+	1	+	0

25004	Wii	nd Sp	eed	(kno	ts)
TEMP	10 -	4 -	11-	22 -	
(°C)	3	.0	21	33	≥ 3.
≥8	+	+	+	0	
6,7	+	_2	+	+	
4,5	1	4	2	+	
2.3	4	12	3	+	
0,1	9	12	3	+	(
-2,-1	6	5	1	0	
-4,-3	7	3	+	0	(
-6,-5	4	2	+	0	(
-8,-7	4	1	+	0	(
~10,~9	3		+	0	
<u>≤</u> - 11	6	1	+	0	

Cordova

Yakutat					
19085	₩.	nd St	eed	( + n c	!5
TEMP	10 -	4 -		22 -	
(00)	3	10	21	3.3	₹34
<b>₹8</b>	+	+	+	•	
6,7	+	2	+	+	-
4.5	1	4	•	•	
2,3	3	1.1	5	+	-
0,1	6	16	- 6		
2,-1	4	ŕ	2	+	
-4,-3	5	5	2	+	
-65	3	2	1	+	
-8,-7	3	1	+	+	
-109	7	1	+		J.
<u>s</u> - ! 1	2	1	+		•
		L'_			

Sitke					
22349	Wit	nd Sp	eed	(kno	ts)
TEMP	10 -	4 -	11-	22-	1 :
(°C)	3	10	21	33	≩ 34
≥ 12	+	+	+	+	0
10,11	+	1	+	+	0
8.9	+		•	+	+
6.7	1	6	5	+	+
4,5	3	10	6	+	+
2,3	7.	15	6	+	+
0.1	8	11	3	+	0
- 2,-1	4	3	1	+	+
4,-3	2	2	+	+	0
-6,-5	+	1	+	+	C
<u>\$</u> 7	+	1	-	+	+

Annette					
18448	Wie	nd Sp	eed	(kno	ts)
	U -	4 ~	11-	22-	i i
_ (°C)	3	10	21	33	≥ 34
≥12	+	+	+	+	0
10.11	+	1	+	0	0
8.9	+	2	1	+	0
6,7	1	7	6	1	+
4,5	2	11	8	1	+
2,3	4	14	9	2	+
0,1	3	11	5	1	+
-2,-1	1	3	1	+	+
-4,-3	+	1	+	+	0
-6,-5	+	+	+	+	0
<b>\$</b> ~7	+	1	1	+	0

Cape St. J	emes				
20806	Wii	nd Sp	eed	ikno	ts)
TEMP	10 -	4-	141- 1	22 -	
(°C)	3	10	21	3 3	≩ 34
≥ 14	+	+	+	_+	+
12,13	+	+		+	0
10,11	+	+	1	+	0
8,9	+	1	2	1	+
6,7	1	6	11	9	4
4,5	2	7	12	9	4
2,3	2	6	8	5	3
0,1	+	1	2	1	1
-2,-1	0	+	+	+	+
-4,-3	0	+	+	+	+
≨-5	0	+	+	+	+
			+		+

Tofino					
16837	Wil	nd Sp	eed	(krc	ts.
TEMP	0 -	4 -	11-	122 -	
(°€)	3	10	21	33	4 و ج
≥ ۱4	+	+	4	0	.`
12,13	+	1	+	0	7
10,11	1	3	2	+	•
8,9	2	7	5		+
6.7	5	13	8	,	+
4,5	5	8	4	+	+
2,3	7	8	2	+	Ĵ
0,1	6	6	1	+	0
-2,-1	2	1	+	0	0
-4,-3	+	+	0	0	0
≨-5	0	0	Ö	Ç	2

Quilleyute	1				
7181	w:	nd Sp	eed	(kno	ts)
TEMP	0 -	4	11-	22 -	1 1
(°C)	3	10	21	33	≥ 34
≥ 16	+	1	+	_0	0
14,15	+	1	+	0	
12,13	+	3	1	0	0
10,11	1	8	2	0	J
8,9	2	11	3	+	0
6,7	6	15	3	+	0
4,5	6	9	1	0	0
2,3	6	7	1	0	0
0,1	5	4	+	0	0
-2,-1	3	1	0	0	0
≨-3	1	1	0	0	0

17778	₩i	nd Sp	eed	(kno	ts)
TEMP	10-	4 -		22 -	ì
(°C)_	3	10	21	33	≥34
≥ 16	+	-	+	0	0
14,15	+		+	+	0
12,13	+	. 3	2	+	0
:0,11	1	8	5	+	+
8,9	_2	11	6	1	+
6,7	5	15	6	1	0
4,5	4	8	2	+	0
2,3	3	6	1	+	0
0,1	3	3	+	+	0
-21	1	1	+	0	0
≨-3	+	+	+	0	0

18312	Wi	nd Sp	eed	(kno	ts)
TEMP	(0-	4-		22 -	i
(°C)	3	10	21	33	≥ 34
≥ 18	_+	+	+	0	0
16,17	+	1	+	+	0
14,15	+	1	1	+	0
12,13	+	4	4	+	0
10,11	1	11	8	+	+
8,9	2	13	6	+	+
6,7	_ 3	15	6	+	+
4,5	1	8	2	+	+
2,3	1	6	1	+	+
0,1	+	2	+	+	+
<u></u> <u>4</u> - 1	+	+	+	0	0

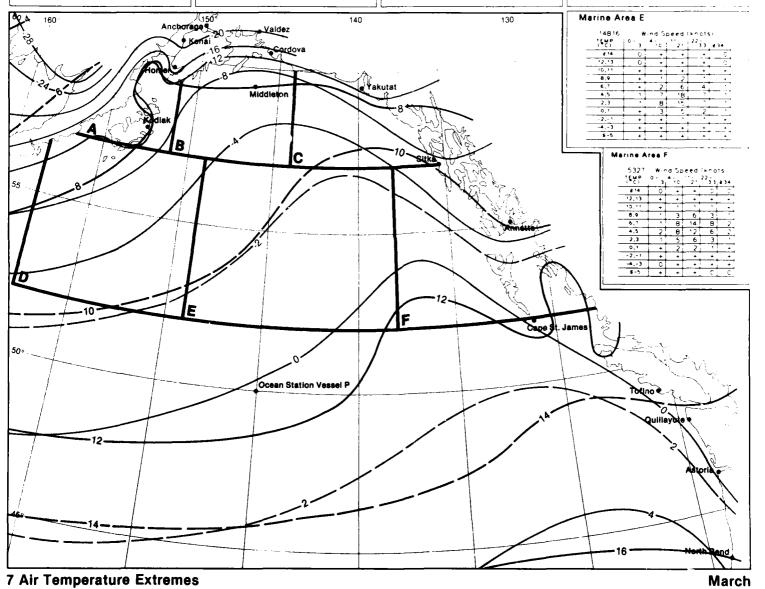
0	Ocean Station Vessel P										
	7732	Wi	Wind Speed (knots)								
	TEMP	10-	4 -	113-	122	;					
	(°C)	3	10	21	3 3	≥ 34					
	≥ 14	0	0	0	0	0					
	12,13	0	0	0	0	0					
	10,11	0	0	0	0	0					
	8,9	0	+	+	+	+					
	6,7	+	2	7	8	2					
	4,5	1	6	21	17	-					
	2,3	1	4	10	9	3					
	0,1	+	+	1	2	,					
	-2,-1	0	+	+	+	+					
	-4,-3	0	0	0	0	+					
	≨-5	0	0	0	0	0					

Marine A	rea A	1			
1860	Wi	nd Sp	eed	(kno	ts)
TEMP	0-	4-		22-	1 1
(°C)	3	10	21	33	≩34
₹12	+	+	0	+	0
10,11	+	+	+	+	0
8,9	+	1	+	+	0
6,7	+	2	2	1	+
4,5	1	4	8	5	1
2.3	2	9	19	5	1
0,1	2	5	9	3	1
-2,-1	+	2	4	2	+
-4,-3	+	1	1	1	+
-6,-5	0	- ⊀-	+	1	. +
<b>≨</b> −7	+	1	1	1	+

Marine A	rea B				
3786		nd Sp	eed	(kno	ts)
TEMP (°C)	0 -	10	11-	22~	≥ 34
≩12	+	+	+	+	0
10,11	_+	+	+	+	+
8.9	+	+	1	+	+
6,7	+	2	3	1	1
4,5	1	5	9	4	1
2,3	2	12	18	6	2
0,1	1	6	- 8	4	1
-2,-1	+	1	2	1	+
-4,-3	+	+	1	1	+
-6,-5	+	+	+	+	+
≦-7	0	+	+	+	+

M	larine Ai	ea C				
	3282	Wi	nd Sp	eed	(kno	ts)
	TEMP	10 -	4 -	11- ;	22 -	1
	(°C)	_ 3	10	21	3 3	≥34
	≩12	0	+	+	+	0
	10,11	+	+	+	+	+
	8,9	+	1	1	+	0
	6,7	1	3	5	2	+
	4,5	2	8	11	5	1
	2,3	3	12	18	6	1
	0,1	1	4	7	2	1
	-21	+	1	1	+	+
	-4,-3	0	+	1	+	+
	-6,-5	+	+	+	+	0
	≦-7	0	+	+	+	0

10246	Wind Speed (knots)							
TEMP	10 -	4 -	11-	22 -	1			
(°C)	3	10	21	33	≥34			
≥12	+	+	+_	+	+			
10,11	+	+	+	+	+			
8,9	+	+	1	+	+			
6,7	+	2	3	2	•			
4.5	1	5	14	g	2			
2.3	1	8	18	10	3			
0.1	+	2	6	4				
-21	+	•	1	1				
-4,-3	+		1		+			
-6,-5	+	+	+	+	+			
<b>≤</b> - 7	1 +	+	+	•	+			



Kodiak					
23970	o wi	nd Sp	eed	(kno	ts)
TEMP	0-	4-	11-	22-	1 (
(°C)	3	10	21	33	≩34
≩12	+	+	+	+	0
10,11	+	1		+	0
8,9	+	1	1	+	+
6,7	1	5	3	+	+
4,5	2	8	5	1	+
2,3	6	15	11		+
0,1	5	9	7	1	+
-2,-1	1	3	3	1	+
-4,-3	1	2	2	+	+
-6,-5	+	1	1	+	0
≦-7	+	1	1	+	0

Н	nen					
	18263	Wie	nd Sp	eed	(kno	ts)
		10-	4-	111-	22 -	
	(°C)	3	10	21	33	≥34
	≥ 10	+	+	+	0	0
	8,9	+	1		0	0
	6,7	1	6	2	+	0
	4,5	2	9	3	+	0
	2,3	6	14	5	+	0
-	0,1	8	11	4	+	0
_	-2,-1	4	5	2	+	0
	-4,-3	4	4	1	+	0
	-6,-5	1	1	1	0	0
	-8,-7	1	1	+	+	0
-	≨-9	+	1	+	+	Ö
-						

Ke	nei					
	21393	Wi	nd Sp	eed	(kno	ts)
	TEMP	0-	4 -	11-	22-	1 1
	_(°C)	3	10	21	33	≩ 34
	≥ 10	+	1	1	+	0
_	8,9	+	2	1	0	0
	6,7	+	5	_2	+	0
	4,5	1	7	2	+	0
_	2,3	2	13	4	+	0
	0,1	4	15	4	+	+
-	-2,-1	4	7	2	+	+
-	-4,-3	3	5	2	+	+
	-6,-5	2	2	1	+	O
-	-8,-7	7	1	+	+	0
	≨-9	2	2	+	+	0
-	3-9			+	+	

23039	Wil	nd Sp	eeg	(100	15:
TEMP	10-	4 -	115-	22 -	1
(°C)	3	10	21	33	234
≥10	+	2	+	+	0
8,9	+	2	1	+	0
6,7	1	6	2	+	0
4,5	2	9	2	+	0
2.3	5	15	3	+	Û
0.1	7	14	1	+	0
-21	4	6	,	+	9
-4,-3	3	5		+	
-6,-5	1	2	+	+	0
-8,-7	1	1	+	O	Ç
≨-9	+	1	+	0	G

Veldez					
5820		nd Sp	eed	(kno	ts)
TEMP	0 -	4	111	22 -	
(°C)	3	10	21	33	≥ 34
≥12	+	1	+	0	0
10,11	+	1	+	0	0
8,9	1	3	+	O	0
6,7	3	8		0	0
4,5	5	8	1	+	0
2,3	12	12	1	+	0
0,1	16	10	1	+	0
-2,-1	3	4	1	С	0
-4,-3	2	2	+	+	0
-6,-5	1	1	+	+	0
≨ - 7	+	+	+	+	0

Middleton					
16083	Win	nd Sp	eed	(kno	ts)
TEMP	0-	4-	11-	22-	
(°C)	3	10	21	3 3	≥34
≥ 12	0	0	0	0	Ö
10,11	+	+	+	0	0
8,9	+	1	+	0	0
6.7	1	6	5	1	+
4,5	2	12	13	3	+
2.3	4	16	15	4	1
0.1	2	6	4	-	+
-2,-1	+	1	1	+	+
-43	+	+	+	+	0
-6,-5	0	+	+	0	0
<u>≤</u> - 7	0	0	0	0	0

24206	Wii	nd Sp	oeed	(kno	ts)
TEMP	10-	4 -	[11-	22	
(°C)	3	10	21	33	≥34
≥12	+	3	+	0	С
10,11	+	1	+	0	0
9,9	1	2	+	0	+
6.7	2	7	1	+	0
4,5	4	9	2	+	0
2,3	8	14	4	+	+
0.1	11	10	2	+	0
-2,-1	7	2	+	+	0
~4,-3	6	1	+	+	0
-6,-5	2	+	+	0	0
≨-7	2	+	+	0	0

Cordova

Ye	kutat					
	18478	Win	nd Sp	eed	lkno	15.
	TEMP	0 -	4 -	11 -	22-	
	(°C)	3	10	21	3.3	234
	≥12	+	1	+	C	0
	10,11	+	1	+	0	2
	8,9	+	_ 2	+	0	0
	6,7	1	6	1	+	+ 1
	4,5	3	9	3	+	+ 1
	2.3	5	16	6	1	+
	0.1	7	14	4	+_	+
	~2,-1	4	3	+	0	0
	-4,-3	4	1	+	0	
	-6,-5	1	+	+	C	0
	≦ - 7	1	+	+	0	0
-						–

21582 Wind Speed (knots)  TEMP 0- 4- 11- 22- (°C) 3 10 21 33 234  214 + 1 + 0 0  12,13 + 1 + 0  10,11 1 3 1 + 0  8.9 1 4 3 + 0  6,7 3 10 7 + +  4.5 5 13 6 + +  2.3 7 13 4 + +  0,1 5 5 1 + 0  -2,-1 1 + + 0  -2,-1 1 + + + 0	Sitke					
(°C)         3         10         21         33         234           214         +         !         +         0         0           12,13         +         !         !         +         0         0           10,11         !         3         1         +         0         0         0         0         1         4         3         +         0         0         0         0         1         4         3         +         0         0         0         1         4         3         +         0         0         0         1         4         3         +         0         0         0         1         4         3         +         0         0         0         1         4         3         +         0         0         0         1         4         3         +         0         0         0         1         4         3         +         0         0         0         1         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4	21582	Wi	nd Sp	eed	(kno	ts)
(°C) 3 10 21 33 \(\frac{2}{3}\) \(\frac{2}\) \(\frac{2}{3}\) \(\frac{2}{3}\) \(\frac{2}{3}\) \(\frac{2}{3}\) \(\frac{2}{3}\) \		0 -	4 -	11-	22~	: 1
12.13 + 1 4 + 0 10.11 1 3 1 + 0 10.11 1 3 1 + 0 10.11 1 3 1 + 0 10.11 1 3 1 + 0 10.11 1 3 1 + 0 10.11 1 4 3 + 0 10.11 1 4 1 4 1 4 1 4 1 4 1 4 1 4 1 1 1 1	(°C)	3	10	21		≥34
0,11 1 3 1 + 0 8.9 1 4 3 + 0 6,7 3 10 7 + + 4.5 5 13 6 + + 7 13 4 + + 0,1 5 5 1 + 0 -2,-1 1 + + + 0	≥ 14	+	1	+	0	0
8.9 1 4 3 + 0 6.7 3 10 7 + + 4.5 5 13 6 + + 2.3 7 13 4 + + 0.1 5 5 1 + 0 -21 1 + + + 0	12,13	+	1	4	+	0
6,7 3 10 7 + + 4,5 5 13 6 + + 2,3 7 13 4 + + 0,1 5 5 1 + 0 -2,-1 1 + + 0	10,11	1	3	1	+	0
4,5 5 13 6 + + 2,3 7 13 4 + + 0,1 5 5 1 + 0 -2,-1 1 + + + 0	8.9	1	4	3	+	0
2,3 7 13 4 + + 0,1 5 5 1 + 0 -2,-1 1 + + + 0	6,7	3	10	7	+	+
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	4,5	5	13	6	+	+
-21 1 + + + 0	2,3	7	13	4	+	+
	0.1	5	5	1	+	0
-43 + + + + 0	~2,-1	1	+	+	+	0
	-4,-3	+	+	+	+	0
5-5 + + 0 0 0	≨-5	+	+	0	0	0

A	nnette					
	17992	Wii	nd Sp	eed	(kno	ts)
		0-	4 -	11-	22-	
	(°C)	3	10	21	33	≥34
	≥ 14	+	1	+	0	0
	12,13	+	2	1	+	0
	10,11	+	4	1	+	0
	8,9	1	5	2	+	+
	6,7	2	13	11	2	+
	4,5	2	13	9	2	+
	2,3	3	11	5	1	+
-	0,1	2	4	1	+	+
,	-2,-1	+	+	+	0	0
	-4,-3	+	+	+	0	0
	<u>≤</u> -5	0	+	+	0	0
•						

Cape St. J	4mes				
20143	Wie	nd Sp	eed	(kno	ts)
TEMP	0-	4 -	11-	22-	1 1
(°C)	3	10	21	33	≥ 34
≥ 16	+	+	0	0	0
14,15	+	+	+	0	0
12,13	+	+	+	+	0
10,11	1	2	2	+	0
8,9	1	3	5	2	+
6,7	1	7	17	13	3
4,5	1	6	11	9	3
2,3	+	3	4	3	1
0,1	+	+	+	+	+
-2,-1	0	+	+	+	0
<u>≤</u> -3	0	0	0	0	0

fino					
15732	Wil	nd Sp	peed	(kno	ts)
TEMP	0 -	4 -	11-	22 -	
(°C)	3	10	21	3.3	≥34
≩ 16	+	+	+	+	0
14,15	•	1	+	+	0
12,13	i	2	1	-	0
10,11	2	7	4	+	0
8,9	3	10	7	1	0
6,7	8	14	7	1	+
4,5	6	7	2	+	,o
2,3	_ 6	4	1	+	0
0,1	3	_2	+	+	0
-2,-1	+	+	0	C	0
<u>≨</u> -3	+	+	0	0	0

Quillayute					
6926	Wi	nd Sp	eed	(kno	ts)
TEMP	0-	4-	11-	22-	1 1
(°C)	3	L 10	21	33	≥ 34
≩ 16	+	3	+	+	0
14,15	+	2	+	0	0
12,13	+	5	1	+	0
10,11	2	10	2	0	0
8,9	3	13	2	+	0
6.7	7	17	2	+	0
4,5	5	7	1	0	0
2,3	6	5	+	0	0
0,1	4	2	0	0	0
-2,-1	1	+	0	0	0
≨-3	+	+	0	0	0

Astoria					
17692	Wi	nd Sp	eed	(kno	ts)
TEMP	0-	4-	11-	22-	
(°C)	3	10	21	33	≩34
≥ 18	+	1	1	+	0
16,17	+	1	+	+	0
14,15	+	2	1	+	0
12,13	1	5	4	+	0
10,11	3	12	8	+	+
8,9	4	12	5	+	0
6,7	6	13	3	+	0
4,5	3	5	1	+	0
2,3	2	3	+	0	0
0,1	1	1	0	0	0
<b>≤</b> -1	+	+	0	0	0

North Ben	d				
17739	Wi	nd Sp	eed	(kno	ts)
TEMP	0-3	10	11-	22 - 33	≩ 34
₹18	+	+	+	+	0
16,17	+	1	1	+	0
14,15	+	1	2	+	0
12,13	1	6	7	1	0
10,11	3	15	10	1	+
8,9	3	13	,	+	0
6.7	3	13	3	+	+
4,5	1	6	1	+	0
2,3	1	3	+	0	0
0,1	+	+	+	Ō	0
≨-1	+	+	0	0	0

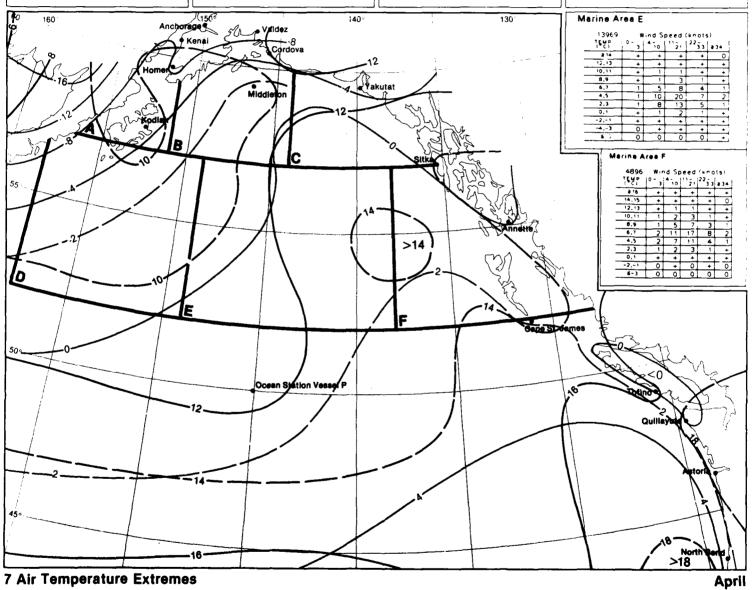
Ocean Sta	tion		H P		
7588	Wie	nd Sp	eed	(kno	ts)
TEMP	0-	4~	11-	22~	l i
(°C) ≥ 14	3	10	21	33	≩34
	0		0	0	0
12,13	0	0	0	0	0
10,11	0	+	0	+	0
8,9	+	+	+	+	+
6,7	1	4	10	9	2
4,5	1	8	23	18	4
2,3	+	3	6	_6	2
0.1	+	+	+	1	+
-2,-1	0	0	0	÷	+
~4,-3	0	0	0	0	0
≨-5	_0	0	0	0	0

М	arina Aı	•				
	1826	Wi	nd Sp	eed	(kno	ts)
	TEMP	10-	4-	11-	122~	1 1
	(°C)	3	10	21	33	≥34
	≩12	0	+	+	+	0
	10,11	+	+	+	0	0
	8,9	1	1	1	+	+
	6,7	1	3	3	1	+
	4,5	2	1.1	15	3	+
	2,3	3	12	17	4	1
•	0,1	2	4	5	2	+
	-2,-1	1	1	2	1	1
	-4,-3	+	+	+	+	+
	-6,-5	0	+	+	+	+
	≨-7	0	0	+	+	+

Marine A	es B				
3748	Wi	nd Sp	eed	(kno	ts)
	0-	4-	11-	22-	1 1
(°C)	3	10	21	33	≩34
≩ 14	0	0	0	+	0
12,13	+	+	+	+	0
10,11	+	1	+	+	+
8,9	+	1	1	+	+
6,7	2	4	5	2	
4,5	5	13	13	5	2
2,3	4	12	13	5	2
0,1	+	2	3	1	1
-2,-1	0	+	+	+	+
-4,-3	0	+	+	+	+
<u>≨</u> -5	0	0	+	+	+

М	arine Ar	ea C				
	2899	Wii	nd Sp	eed	(kno	ts)
	TEMP	0 -	4-		22-	1 1
	(°C)	3	_10	21	33	≥ 34
	≩ 14	0	+	0	0	0
	12,13	+	+	г	_ +	0
	10,11	+	1	+	+	0
	8,9	1	2	2	+	+
	6,7	3	7	9	_ 3	1
	4,5	4	13	15	5	1
	2,3	2	8	10	5	1
	0.1	+	1	2	1	+
	-2,-1	+	+	+	+	+
	-4,-3	0	0	+	0	0
	≨-5	0	0	0	0	0

Marine A	Marine Area D								
10172	Wii	nd Sp	oeed	(kno	ts)				
TEMP	JO-	4-	11-	22 -	1 1				
(°C)	3	10	21	33	≩34				
≩ 14	+	+	+	+	0				
12,13	+	+	+	+	+				
10,11	+	+	+	+	+				
8,9	+	1	1	+	+				
6,7	+	3	5	2	+				
4,5	1	8	17	8	2				
2,3	1	8	17	8	2				
0,1	+	2	4	4	1				
-2,-1	+	+	1	i	+				
-4,-3	0	+	+	+	+				
≦-5	0	+	+	+	+				



Kodiak					
24054	Wi	nd Sp	eed	(kno	(s)
TEMP	0 -	14-	11-	22-	l i
_ (°C)	_3	10	L 21	33	≥34
≩ 16	+	+	+	0	_0
14,15	+	1	+	0	0
12,13	+	1	1	+	0
10,11	1	3	1	+	0
8,9	2	6	2	+	0
6,7	4	16	. 8	1	+
4,5	4	14	9	1	+
2.3	4	8	5		+
0,1	1	2	1	+	0
-2,-1	+	+	+	+	3
≨-3	+	+	+	+	0

18166	Wit	nd Sp	eed	(kno	ts)
TEMP	10-	4-	11~	22-	1
(°C)	<u>i 3</u>	10	21	33	≥ 34
≩ 16	+	+	+	0	_ 0
14,15	+	+	+	+	0
12,13	+	2	1	0	٥
10,11	1	7	3	0	0
В,9	2	10	4	+	0
6,7	5	18	6	+	0
4,5	5	10	3	+	0
2,3	6	6	1	+	٥
0,1	4	3	+	0	0
-2,-1	2	1	+	0	0
≨-3	1	1	+	+	O

	21354	Wil	nd Sp	eed	(kno	ts)
	TEMP	0-	4-	11-	22-	
-	(°C)	3	10	21	33	₹34
_	≩16	+	1	+	0	0
	14,15	+	1	+	0	0
	12,13	+	3	1	+	0
Ī	10,11	1	8	3	+	0
_	8,9	1	9	3	+	0
~	6,7	_2	16	6	+	0
_	4,5	3	11	3	+	0
_	2,3	4	9	_2	+	0
_	0,1	3	4	+	0	0
_	-2,-1	1	1	+	0	0
_	≨-3	1	1	+	+	0

nchorage	•				
23074	Wi	nd Sp	eed	(kno	ts)
TEMP	0 -	4 ~		22-	1
(°C)	_3	10	21	33	≩34
≥ 18	+	1	+	0	0
16,17	+	_ 2	+	0	0
14,15	+	2	1	+	0
12,13	1	6	3	+	0
10,11	1	11	5	+	0
8,9	2	11	4	+	0
6,7	5	15	5	+	0
4,5	4	8	1	+	0
2,3	3	5	+	+	0
0,1	2	1	+	+	С
≦-1	ī	+	+	+	0

5248	Wi	nd Sp	eed	(kno	ts)
TEMP	10 -	4 ~	11-	22-	1
_ (°C) _	_3	_10	21	33	≩34
≥ 16	+	_ 1	+	0	0
14,15	+	_ 2	1	0	0
12,13	+	_ 5	1	0	0
10,11	1	12	1	Ų	0
8,9	_3	13	1	0	_ 0
6,7	10	17	1	0	_0
4,5	9	7	+	0	0
2,3	6	3	+	O	0
0,1	2	1	0	0	0
-2,-1	+	+	0	0	0
≨-3	0	0	0	0	0

Middleton					
15744	Wii	nd Sp	eed	(kno	ts)
TEMP	0-	4-	11-	22-	1
(°C)	3	10	21	33	≥ 34
≥ 16	+	+	+	0	0
14,15	+	+	+	0	0
12,13	+	+	+	0	0
10,11	+	3	1	+	0
8,9	1	8	_ 5	+	0
6,7	4	20	17	2	+
4,5	4	12	10	2	+
2,3	1	4	2	_	+
0,1	+	+	+	0	0
-2,-1	+	+	+	+	0
≦-3	0	+	+	0	_0

Cordova					
24356		nd Sp	eed	(kno	ts)
TEMP (°C)	0-	4-		22-	
≥ 16	3	10	21	0	234
14,15	+	2	+	+	0
12,13	1	4	1	0	0
10,11	2	6	<del></del>	0	0
8.9	4	8	<del></del>		0
6,7	<b>↓</b> — —		<del>-</del>	+	_
4,5	10	13	2	+	+
	9	8	2	+	+
2,3	8	5		+	0
0,1	5	1	+	+	0
-2,-1	2	+	+	+	0
≨-3	1_	+	+	0	0

akutet					
18156	Wi	nd Sp	eed	(kno	ts)
TEMP	10-	4 -	11-	22 -	1
(°C)	3	10	21	33	≥34
≥ 16	+	1	+	+	0
14,15	+	1	+	0	0
12,13	+	_ 2	1	+	0
10,11	1	7	_2	+	+
8,9	2	10	2	+	+
6,7	5	18	5	+	+
4,5	5	10	4	+	+
2,3	5	7	2	+	+
0,1	3	2	1	+	0
-2,-t	2	+	+	0	0
≨-3	1	+	+	0	0

Si	tke					
	21436	Wii	nd Sp	eed	(kno	ts)
	TEMP	0 -	4 -	11-	22~	1 1
	(°C)		_10	21	_ 33	≩34
	≩18	+	1	+	0	0
	16,17	+	1	+	+	0
	14, 15	+	1	+	+	0
	12,13	1	4	2	+	0
	10,11	3	9	4	+	0
-	8,9	5	12	4	+	0
-	6.7	10	15	5	+	0
	4,5	_ 5	7	2	+	0
	2,3	3	3	+	+	0
	0,1	1	+	+	0	0
	<u>⊊</u> 1	+	+	0	0	0
-						

^1	nette					
	17813	Wi	nd Sp	eed	(kno	ts)
	TEMP	10-	4 -	11-	22 - 1	i 1
	(°C)	3	10	21	33	≩34
	≩ 18	+	2	+	0	0
	16,17	+	2	+	+	0
	14,15	+	2	_ 1	0	0
	12,13	1	_6	2	+	0
	10,11	2	13	4	+	+
	8,9	3	14	7	+	+
	6,7	4	15	. 8	1	+
	4,5	2	5	1	+	0
•	2,3	1	_2	+	+	+
	0,1	+	+	+	0	0
-	<u>≤</u> -1	0	0	0	0	0

C	ape St. J.	ames				
	20814	Win	nd Sp	eed	(kno	ts)
	TEMP	0-	4 -	11~	22-	
	(°C)	3	10	21	33	≩34
	≥ 18	0	+	+	+	0
	16,17	+	+	+	+	0
	14,15	+	+	+	+	+
	12,13	+	2	2	[ +	+]
	10,11	1	5	7	2	+
	8,9	1	7	13	-6	1
,	6,7	2	9	18	0	2
•	4,5	1	_3	4	2	+
	2,3	+	+	+	+	+
	0,1	0	0	+	+	0
	<u>≨</u> −1	0	0	0	0	0

North Bend

16638	Wil	ua 2t	peed	(kno	(5)
TEMP	0 -	4-	111-	22 -	
(°C)_	_ 3	10	21	33	≩ 34
≥ 18	+	1	+	0	0
16,17	+	1	+	+	. 0
14,15	+	2	1	+	0
12,13	1	7	5	+	0
10,11	.5	17	7	+	+
8,9	8	11	3	+	+
6,7	8	7	2	+	0
4,5	_ 3	2	+	0	0
2,3	_ 2	1	+	0	0
0,1	+	+	0	0	0
<b>≨</b> -1	0	0	0	0	0

Quilleyute					
6420	Wii	nd Sp	eed	(kno	ts)
TEMP :	0 -	4 -	11-	22 -	l i
(°C)	3	10	21	33	≩34
<u>₹</u> 20	+	2	+	0	0
18,19	+	1	+	0	_ 0
16.17	+	3	+	0	0
14,15	+	5	1	0	0
12,13	1	13	2	0	0
10,11	5	19	2	0	0
8,9	7	10	+	0	٥
6,7	9	7	+	+	0
4,5	4	2	+	0	0
2,3	2	1	0	0	0
≰1	+	+	0	0	0

17537	Wi	nd Sp	eed	(kno	ts)
TEMP	0-	4-	11-	22-	
(°C)	3	10	21	33	≥34
<u>₹</u> 20	+	1	1	+	0
18,19	+	1	1	+	0
16,17	+	3	2	+	0
14,15	_ 1	5	3	+	0
12,13	3	13	7	+	_0
10,11	6	18	6	+	0
8,9	4	9	1	+	0
6,7	3	6	+	+	٥
4,5	1	2	+	+	0
2,3	1	1	+	0	0
<b>\$</b> 1	+	+	0	0	0

Astoria

18312	Wit	nd Sp	eed	(kno	ts)
TEMP	0-	4	11	22-	)
(°C)	3	10	21	33	≥34
₹20	+	+	+	+	0
18,19	+	+		+	0
16,17	+	- 2	3	+	+
14,15	+	4	_6		+
12,13	2	13	10	2	+
10,11	5	19	7	1	+
8,9	_2	9	2	+	Ó
6,7	_2	6	1	0	Ō
4,5	+	2	+	0	0
2,3	+	+	0	0	_0
≨ 1	+	+	0	0	0

7707	141			(1	\
7797		וכ סי	eeo	(kno	15)
TEMP (°C)	10 - 3	10	21	22-	≥34
≥16		_	_	-5-	
	0	0	0	_	_ 0
14,15	_ 0	0	$\Box$	0	0
12,13	+	0	0	0	0
10,11	+	+	+	+	+
B,9	+	2	4	3	+
6,7	2	10	27	17	2
4,5	1	- 5	13	8	1
2,3	+	+	1	+	+
0,1	0	0	0	0	0
-2,-1	0	0	Ő	0	0
≨-3	0	0	0	0	0

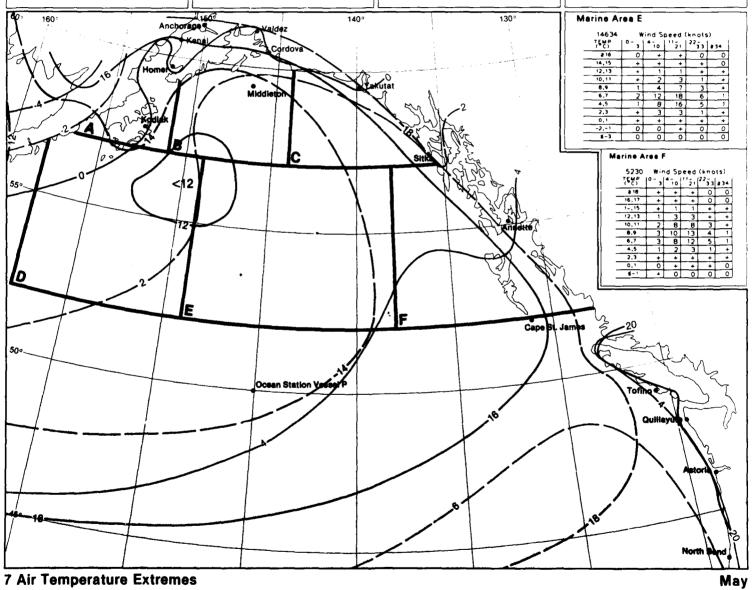
May

Marine Ar	• • A				
2396	Wil	nd Sp	eed	(kno	ts)
	0-	4-		22-	11
(°C)	3	10	21	33	≩34
≥ 16	+	+	+	0	0
14,15	+	+	+	0	0
12,13	+	1	+	0	0
10,11	2	2	1	+	0
8,9	2	6	3	1	+
6,7	4	13	11	2	+
4,5	4	15	17	2	1
2,3	2	3	3	1	1
0,1	+	1	+	+	+
-2,-1	_0	0	+	+	0
≨-3	Ö	0	+	+	0

Marine Ar	ea B				
4308	Wi	nd Sp	peed	(kno	ts)
TEMP (°C)	0-3	4- 10	11-	22 - 33	≩34
≩ 16	+	+	0	0	0
14,15	+	+	+	0	0
12,13	+	1	1	+	0
10,11	2	3	3	+	+
8,9	2	6	6	1	+
6,7	5	14	16	4	1
4,5	2	10	13	4	1
2,3	+	2	2	1	+
0,1	+	+	+	+	+
-2,-1	0	+	+	0	+
≨-3	0	0	0	0	+

М	arine Ar	es C				
	2925	Wie	nd Sp	eed	(kno	ts)
	TEMP	0-	4-	11-	22-	
	(°C)	3	10	21	33	≥34
	≥ 16	+	+	+	+	0
	14,15	+	_1	1	+	0
	12,13	1	2	1	0	0
	10,11	2	4	3	_ 1_	+
	8,9	4	9	9	2	+
	6,7	5	15	14	4	1
	4,5	_2	_7	7	2	+
	2,3	+	_1	1	1	+
	0,1	0	+	+	+	0
•	-2,-1	0	+	0	٥	0
	≨-3	0	0	0	0	0

M	larine A	es D	•			
	11324	Wi	nd Sp	eed	(kno	ts)
	TEMP	0-	4-	11-	22 -	!
	(°C)	3	10	21	33	≥34
	≥ 14	+	+	+	+	0
	12,13	+	+	+	+	+
	10,11	+	1	2	+	+
	8,9	+	3	5	1	+
	6,7	1	8	15	6	1
	4,5	1	9	21	. 8	1
	2.3	+	3	7	3	+
	0,1	+	+	1	+	+
	-2,-1	+	+	+	+	+
	-4,-3	0	0	+	+	0
	≨-5	0	0	0	0	0



### 11-172

Kodiak					
23266	Wi	nd Sp	eed	(kno	ts)
TEMP	10-	14-	11-	122 -	i 1
(°C)	3	10	21	33	≩34
≥ 18	+	1	1	+	0
16,17	1	2	1	+	0
14,15	1	2	1	+	0
12,13	2	7	2	+	+
10,11	5	12	4	+	+
8,9	5	13	6	+	0
6,7	6	15	8	+	0
4,5	1	2	1	+	0
2,3	+	+	+	+	0
0,1	+	+	0	0	0
<b>≤</b> −1	+	+	0	0	0

Н	DMer					
	17612	Wi	nd Sp	eed	(kno	ts)
	TEMP	0-	4 -	11-	22-	l i
	(°C)	3	10	21	33	≩34
	≩18	+	1	+	0	0
	16,17	+	1	1	0	0
	14,15	+	3	1	0	0
	12,13	2	1	4	+	0
	10,11	5	17	6	+	0
	8,9	6	11	3	+	0
	6,7	8	8	1	+	0
	4,5	3	2	+	+	0
	2,3	2	1	+	0	0
	0,1	1	+	0	0	0
	<b>≦</b> −1	+	+	0	0	0
•						

20648	Wii	nd Sp	eed	(kno	ts)
TEMP	10 -	4 -	11-	22-	1
(°C)	3	10	21	33	≩34
≩ 20	+	1	+	0	0
18,19	+	1	+	0	0
16,17	+	3	1	0	0
14,15	+	4	1	0	0
12,13	1	10	4	+	0
10,11	. 2	16	6	+	+
8,9	3	14	5	+	0
6.7	5	12	3	+	0
4,5	2	3	+	0	0
2,3	1	1	+	0	0
<u>≨</u> 1	+	+	0	0	0

nchorage	•				
22320	Wit	nd Sp	eed	(kno	ts)
	0-	4 -	11-	22 -	:
(°C)	3	10	21	33	≩34
₹22	+	1	+	0	0
20,21	+	2	+	+	0
18,19	+	3	1	+	0
16,17	1	7	2	+	0
14,15	1	9	3	+	0
12,13	4	15	6	+	0
10,11	5	15	4	+	0
8,9	4	7	2	+	0
6,7	2	3	1	+	0
4,5	+	+	+	+	0
£3	+	+	0	0	0

Valdez		٠			
5196	Wii	nd Sp	eed	(kno	ts)
TEMP	0-	4 -	11-	22	1 1
(°C)	3	10	21	33	≩34
≥ 20	+	1	+	0	0
18,19	+	2	1	0	0
16,17	+	5	2	0	0
14,15	1	7	2	0	0
12,13	3	15	2	0	0
10,11	9	16	1	0	0
8,9	10	9	+	0	0
6,7	8	4	+	0	0
4,5	1	+	0	0	0
2,3	+	+	+	0	0
<u>≨</u> ↑	+	+	0	0	0
	•				

Midd	leton					
15	318	Wi	nd Sp	eed	(kno	ts)
	ÉMP	0-	4 -	11-	22 -	l
(	°C)	3	10	21	33	≩34
	≩18	0	+	0	0	0
- 1	6,17	+	+	+	0	0
1	4,15	+	1	+	0	0
1	2.13	1	6	2	+	0
1	0,11	3	16	8	+	0
	8,9	4	18	10	+	+
	6,7	4	14	8	1	- +
	4,5	1	1	+	+	+
	2,3	+	+	+	+	0
	0.1	0	0	0	0	0
	≦-1	0	0	0	0	0

23385	Wit	nd Sp	eed	(kno	ts)
	10-	4 -	11-	22-	1
(°C)	3	10	21	33	≥ 34
≩ 20	+	1	+	0	0
18,19	+	2	+	+	0
16,17	1	3	+	+	0
14,15	2	5	+	0	0
12,13	5	9	_	0	+
10,11	11	13	1	0	0
8,9	12	9	1	0	+
6,7	11	6	1	0	0
4,5	4	1	+	0	0
2,3	2	+	+	0	0
<u>≰</u> 1	1	+	0	0	0

Cordova

17750	Wii	nd Sp	eed	(kno	ts)
TEM?	0 -	4 -	11-	22-	
(°C)	3	10	21	33	≩34
≥ 20	+	+	+	+	0
18,19	+	. 1	_ +	0	0
16,17	+	2	1	0	0
14,15	+	3	1	Ö	0
12,13	1	1.1	_ 3	+	0
10,11	6	20	4	+	0
8,9	6	13	3	+	+
6,7	6	9	2	+	+
4,5	2	2	+	+	+
2,3	1	+	+	0	0
<u>≨</u> 1	+	+	0	0	0

Sitke					
20779	Wii	nd Sp	eed	(kno	ts)
TEMP	0-	4 -	11-	22-	l
(°C)	3	10	21	33	≩34
≥ 20	+	+	+	+	0
18,19	+	1	+	0	0
16,17	1	2	1	+	0
14,15	1	5	2	+	0
12,13	3	12	4	+	0
10,11	9	20	5	+	+
8.9	8	12	2	+	+
6,7	5	5	1	+	0
4,5	1	1	+	0	0
2,3	+	+	0	0	0
<u>≨</u> 1	+	0	0	0	0

Αſ	nnette					
	17216	Win	nd Sp	eed	(kno	ts)
	TEMP	0-	4 -	11-	22-	
_	(°C)	3	10	21	33	≥34
	≥22	+	1	+	0	0
_	20,21	+	1	+	0	0
	18,19	+	2	+	+	0
-	16,17	+	4	1	+	0
-	14,15	1	6	1	+	0
-	12,13	2	15	4	+	0
	10,11	5	21	9	1	+
	8,9	3	10	5	1	0
	6,7	2	3		+	0
-	4,5	+	+	+	0	0
-	≨3	+	+	0	0	0

C	Cape St. James								
	20136	Wie	nd Sp	eed	(kno	ts)			
	TEMP	0-	4 -	11-	22 -	1 1			
	(°C)	3	10	21	3 3	≥ 34			
	≩ 20	+	+	+	+	0			
	18,19	+	+	+	0	0			
	16,17	+	+	+	+	0			
	14,15	+	1	1	+	+			
	12,13	1	5	5	2	+			
	10,11	2	11	18	7	1			
	8,9	2	8	16	8	1			
	6,7	1	2	4	2	+			
	4,5	+	+	+	+	0			
	2,3	0	0	0	0	0			
	<u>≨</u> 1	0	0	0	0	0			

OTINO					
16024	Wis	nd Sp	eed	(kno	ts)
TEMP	0 -	4 -	11-	22 -	1
(°C)	3	10	21	3 3	≩34
₹22	+	1	+	0	0
20,21	+	1	+	0	0
18,19	+	1	1	+	0
16,17	1	3	2	+	0
14,15	1	6	3	+	0
12,13	5	17	7	+	0
10,11	13	17	4	+	+
8,9	6	4	1	+	0
6,7	4	1	+	0	0
4,5	1	+	0	0	0
€3	+	+	0	0	0

Quillayute					
6219	Wi	nd Sp	ed	(kno	ts)
TEMP	0-	4-	11-	22-	
(°C)	3	10	21	3 3	₹34
₹22	+	2	+	0	0
20,21	+	2	+	0	0
18,19	+	3	+	0	0
16,17	+	8	1	0	0
14,15	1	11	1	0	0
12,13	5	20	1	0	0
10,11	12	15	+	0	0
8,9	6	3	+	0	0
6,7	4	1	0	0	0
4,5	1	+	0	0	0
<b>£</b> 3	+	+	0	0	0

16954	4 Wind Speed (knots)							
TEMP	0-	4-	11-	22-	Ι.			
(°C)	3	10	21	33	≥34			
≩22	+	1	1	+	0			
20,21	+	1	1	+	0			
18,19	+	2	1	+	0			
16,17	1	8	6	+	0			
14,15	2	11	5	+	0			
12,13	6	21	5	+	0			
10,11	6	ΞŒ	1	0	0			
8,9	2	2	+	0	0			
6,7	1	1	0	0	0			
4,5	+	+	0	0	0			
≨3	+	+	0	0	0			

Astoria

orth Ben	d				
17710	Wii	nd Sp	eed	(kno	ts)
TEMP	10-	4 -	11-	22-	1
(°C)	3	10	21	33	≩34
<b>≩22</b>	0	+	+	0	0
20,21	+	+	1	+	0
18,19	+	T	3	+	0
16,17	+	5	9	1	0
14,15	1	10	8	2	+
12,13	4	19	7	1	+
10,11	4	13	3	+	0
8,9	1	3	+	0	0
6,7	+	1	+	0	0
4,5	+	+	+	0	0
€3	+	+	0	0	0

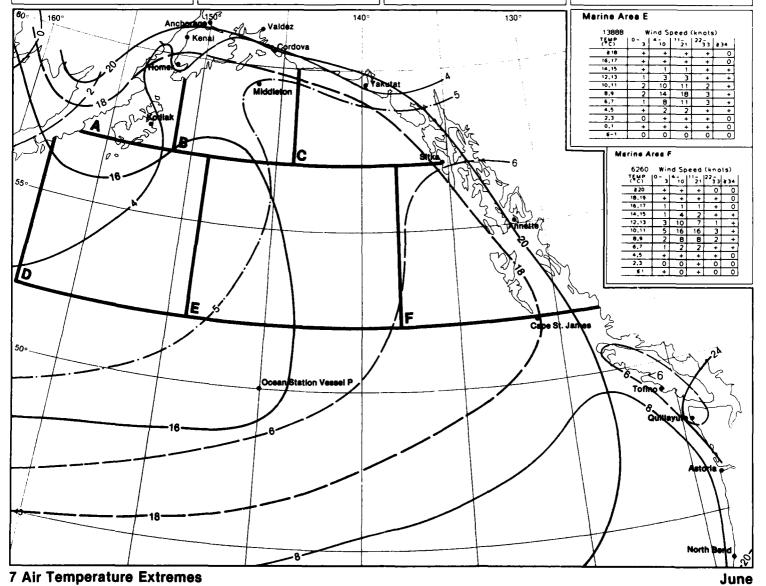
Ocean Sta	Ocean Station Vessel P								
7420	Wi	nd Sp	eed	(kno	ts)				
TEMP	0-	4 ~	11-	22-	1 1				
(°C)	3	10	21	33	≥ 34				
≩ 18	0	O	0	0	0				
16,17	0	0	0	0	0				
14,15	0	+	+	0	0				
12,13	+	+	+	+	0				
10,11	1	3	6	3	+				
8,9	2	12	26	11	1				
6,7	1	7	16	8	1				
4,5	+	+	+	+	+				
2,3	0	0	0	0	0				
0,1	0	0	0	0	0				
≦-1	0	0	0	0	0				

Marine A	Marine Area A									
2626	Wit	nd Sp	eed	(kno	ts)					
TEMP	0-	4-		22-	1 1					
(°C)	3	10	_ 21	33	≩34					
≥ 18	+	+	+	0	0					
16,17	+	+	+	0	0					
14,15	1	1	+	+	0					
12,13	3	4	2	+	+					
10,11	5	10	6	1	0					
8,9	5	13	10	2	+					
6,7	5	13	9	1	+					
4,5	1	3	2	1	+					
2,3	+	+	+	+	+					
0,1	0	+	0	0	0					
<b>≦</b> −1	0	+	+	0	0					

M	Marine Area B										
	4224	Wi	nd Sp	eed	(kno	ts)					
	TEMP	0-	4-	11-	22-	i i					
	(°¢)	<u> 3</u>	10	21	33	≩34					
	≩18	+	+	+	+	0					
•	16,17	+	+	+	0	+					
•	14,15	_	2	1	+	+					
•	12,13	2	5	5	1	+					
	10,11	4	13	9	1	+					
•	8,9	5	15	11	2	+					
	6,7	2	7	7	2	+					
	4,5	+	1	1	+	+					
	2,3	0	+	+	+	0					
-	0,1	+	+	+	0	0					
-	<u>≨</u> – 1	0	0	0	0	0					

Marine A	Marine Area C										
2728	Wi	nd Sp	eed	(kno	ts)						
TEMP	10-	4-	11-	22-	1 1						
(°C)	1 3	10	21	33	≥34						
≥20	+	+	+	0	0						
18,19	+	+	+	0	0						
16,17	1	1	1	+	0						
14,15	2	3	2	+	+						
12,13	4	9	5	1	+						
10,11	6	15	12	2	+						
8,9	4	11	9	1	+						
6,7	1	4	3	1	+						
4,5	+	+	+	+	0						
2,3	+	+	0	0	0						
≨1	0	+	+	0	0						

Marine A	larine Area D										
11224	Wi	nd Sp	eed	(kno	ts)						
TEMP (°C)	о- з	10	11-	22 - 33	≥34						
≥ 18	+	+	0	0	0						
16,17	+	+	+	+	0						
14,15	+	1	1	+	0						
12,13	+	2	_ 2	+	0						
10,11	1	5	7	2	+						
8,9	2	10	16	4	+						
6,7	2	11	19	5	+						
4,5	+	2	4	1	+						
2,3	+	+	+	+	*+						
0,1	+	+	+	+	+						
≨-1	+	0	+	0	0						



K	odiak					
	24002	Wie	nd Sp	eed	(kno	ts)
	TEMP	0-	4-	11 -	22-	- 1
	(°¢)		10	21	33	≩34
	₹22	+	+	+	0	0
	20,21	+	1	+	+	0
	18,19	1	1	1	+	0
	16,17	2	4	1	+	0
	14,15	3	6	1	+	0
	12,13	7	13	3	+	0
	10,11	12	18	5	+	0
	8,9	5	7	2	+	
	6,7	2	2	1	+	0
	4,5	+	+	0	0	0
	€3	+	+	0	0	0

н	omer					
	18871	Win	nd Sp	eed	(kno	ts)
	TEMP	0 -	4-	11~	22-	1 1
	(°C)	3	10	21	33	≩34
	≩20	+	+	+	0	0
	18,19	+	1	+	0	0
	16,17	1	5	1	0	0
	14,15	2	9	3	0	0
	12,13	6	18	4	0	0
	10,11	11	14	2	+	0
	8,9	7	5	+	+	_0
	6.7	4	2	+	0	0
	4,5	1	1	0	0	0
	2,3	+	+	0	0	0
	<b>≦</b> 1	+	+	0	0	0

K	enai					
	22039	Wie	nd Sp	eed	(kno	ts)
	TEMP	10 -	4-	11-	22-	1 1
	(°C)	3	10	21	33	≥34
	₹22	+	1	+	0	0
	20,21	+	1	+	0	0
	18,19	+	2	+	0	0
·	16,17	+	6	1	0	0
	14,15	1	9	2	+	0
	12,13	3	19	6	+	0
	10,11	6	20	5	+	0
·	8,9	3	6	1	0	0
	6,7	3	2	+	0	0
	4,5	1	+	0	0	0
	<u>≨</u> 3	+	+	0	0	0

nchorage								
23064	Wi	nd Sp	eed	(kno	ts)			
TEMP	0-	4-	11-	22~	1			
(°C)	3	10	21	33	≩34			
≩ 24	+	+	+	0	0			
22,23	+	1	+	0	0			
20,21	1	4	1	+	0			
18,19	1	5	1	0	0			
16,17	2	11	3	+	0			
14,15	4	13	3	+	0			
12,13	8	20	3	+	0			
10,11	6	8	1	0	0			
8,9	1	1	+	0	0			
6.7	1	+	+	_0	0			
<u>≨</u> 5	+	+	0	0	0			

٧	aldez					
	5531	Wi	nd Sp	eed	(kno	ts)
	TEMP	0-	4 -		22-	1 1
	(°C)	3	10	21	33	≥34
	≥22	0	1	+	0	0
	20,21	+	2	+	+	0
	18,19	+	3	1	0	0
	16,17	1	8	2	0	0
	14,15	2	10	1	0	0
	12,13	10	16	1	0	0
	10,11	20	10	+	0	0
	8,9	7	2	+	0	0
	6,7	2	+	0	0	0
	4,5	+	0	0	0	0
	<u>≨</u> 3	0	0	0	0	0

Middleton					
15598	Wi	nd Sp	eed	(kno	ts)
TEMP	10-	4 -	(11-	22-	1 1
(°C)	3	10	21	33	≥34
≥ 20	+	+	+	0	0
18,19	+	+	+	0	0
16,17	+	1	+	0	0
14,15	1	5		0	0
12,13	6	20	6	+	0
10,11	8	26	10	1	0
8,9	3	7	3	+	+
6,7	+	1	+	0	_ 0
4,5	_0	0	0	0	0
2,3	0	0	0	0	0
≨ 1	0	0	0	0	0

24015	Wind Speed (knots)						
TEMP	0-	4 -	11-	22-	ł		
(°C)	3	10	?1_	33	≥ 34		
≩22	+	1	1	0	0		
20,21	+	1	+	0	0		
18,19		2	+	0	0		
16,17	2	5	+	0	0		
14,15	4	7	+	0	0		
12,13	11	13	1	+	0		
10,11	19	12	1	+	0		
8,9	11	3	+	0	+		
6,7	4	1	+	0	0		
4,5	1	+	0	0	0		
≨ 3	+	+	0	0	0		

Cordova

Y	kutat						
	18338	Wii	nd Sp	eed	(kno	ts)	
	TEMP	10-	4-		22~		1
	(°C)	3	10	21	33	≥ 34	
	≥ 22	+	+	+	0	0	
	20,21	+	1	+	0	0	
	18,19	+		+	0	0	
	16,17	+	4	1	0	0	
	14,15	1	8	2	+	0	
	12,13	7	20	4	+	0	
	10,11	11	20	5	+	0	
	8,9	4	5	1	0	0	
	6,7	3	1	+	0	0	
	4,5	1	+	0	0	0	
	≨ 3	+	0	0	0	0	
•							
_							

Si	tka					
	22171	Wii	nd Sp	eed	(kno	ts)
	TEMP (°C)	0-	4-	J11	22-	≥34
	≥22	3	+	21	0	0
,	20,21	+	1	+	0	0
•	18,19	+	2	+	0	Jo
•	16,17	1	5	2	+	ŏ
	14,15	3	9	3	+	0
	12,13	11	21	4	+	0
	10,11	14	15	2	+	0
	8,9	3	3	+	0	0
	6,7	+	+	0	0	0
	4,5	0	0	0	0	0
	≨3	0	0	Э	0	0

Annette					
18496	Wii	nd Sp	eed	(kno	ts)
TEMP	0 -	4 -	11-	22-	
(°C)	3	10	_21	3 3	≩34
≧22	+	2	1	0	٥
20,21	+	_2	+	0	0
18,19	+	3	1	0	0
16,17	1	8	1	+	0
14,15	_2	11	2	+	0
12,13	6	25	6	+	0
10,11	6	14	4	+	0
8,9	1	1	+	+	0
6,7	+	+	+	0	0
4,5	0	+	0	0	0
≨3	0	0	0	0	0

Cape St. James							
20821	Wir	nd Sp	eed	(kno	ts)		
TEMP	10-	4 -	11-	22-	ı		
(°C)	3	10	21	33	≥34		
≥22	0	+	+	+	0		
20,21	+	+	+	+	0		
18,19	+	+	+	+	0		
16,17	+	2	1	+	+		
14,15	1	4	5	1	+		
12,13	2	9	16	6	+		
10,11	2	12	21	10	1		
8,9	+	2	2	1	+		
6,7	+	+	+	0	0		
4,5	0	0	0	0	0		
€3	0	0	0	0	0		

Te	ofino					
	16501	Wii	nd Sp	eed	(kno	ts)
	TEMP	0 -	4 -	11-	22-	1 1
	(°C)	3	10	21	33	≩34
	≩22	+	2	+	+	0
	20,21	+	2	+	0	0
	18,19	+	2	1	+	0
	16,17	1	7	4	+	0
	14,15	3	11	3	+	0
	12,13	12	20	4	+	0
	10,11	12	7	1	+	0
	8,9	3	+	+	0	0
	6,7	1	+	0	0	0
	4,5	+	0	0	0	0
	≨3	+	0	0	0	0
_						

Quilleyute					
6422	Wi	nd Sp	eed	(kno	ts)
TEMP	0-	4-	11-	22-	l
(°C)	3	10	21	33	≥34
≩ 24	+	2	+	0	0
22,23	+	2	+	0	0
20,21	+	4	+	0	0
18,19	+	7	1	0	0
16,17	1	13	1	0	0
14,15	3	14	1	Ö	0
12,13	13	15	+	0	0
10,11	11	4	+	0	0
8,9	4	1	0	0	0
6,7	2	+	0	0	0
<b>≨</b> 5	+	+	0	0	0

A	storia					
	17523	Wii	nd Sp	eed	(kno	ts)
	TEMP	0-	4 -	11-	22-	l i
	(°C)	3	10	21	33	≩34
	≥ 24	_+	1	_ 1	+	0
	22,23	+	1	1	+	0
	20,21	+	3	2	+	0
	18,19	+	6	4	+	0
	16,17	2	14	_ 7	+	0
	14,15	4	16	4	+	0
	12,13	7	17	3	0	0
	10,11	3	4	+	0	0
	8,9	1	1	0	0	0
•	6,7	+	+	0	0	0
	≨5	0	+	0	0	0

North Ben	d				
18316	Wii	nd Sp	eed	(kno	ts)
TEMP	0- 1	4-	11-	22 -	1 1
(°C)	3,	10	21	33	≩34
≩ 24	0	+	+	0	0
22,23	+	+		0	0
20,21	+	1	2	+	0
18,19	+	2	6	1	+
16,17	+	7	12	4	+
14,15	2	10	7	2	+
12,13	4	17	. 8	1	0
10,11	3	8	2	+	0
8,9	1	1	+	0	0
6,7	+	+	0	0	0
≨5	0	+	0	0	ō

Ocean Station Vessel P								
7598	Wii	nd St	eed	(kno	ts)			
TEMP (°C)	0-3	4-	11- 21	22 - 33	≥34			
≩20	0	0	0	0	0			
18,19	0	0	0	0	0			
16,17	+	+	0	+	0			
14,15	+	+	1	+	0			
12,13	1	7	11	3	+			
10,11	2	15	29	8	+			
8,9	1	6	1 *	2	+			
6,7	+	+	1	+	0			
4,5	0	0	0	0	0			
2,3	Ú	0	0	0	0			
€1	0	0	0	0	0			

July

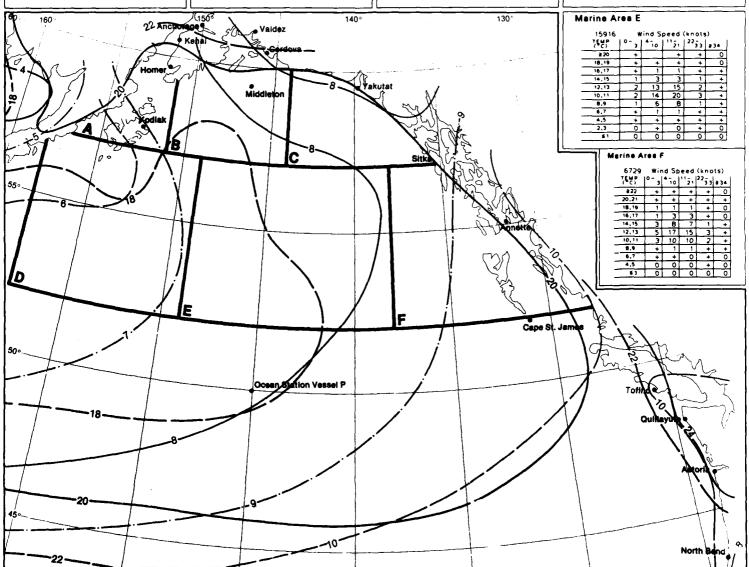
Marine Ar	• • A				
3097	Wie	nd Sp	eed	(kno	ts)
TEMP	0-	4-	11~	22-	1 1
(°C)_	3	10	.21	33	≩34
≥22	0	+	0	0	0
20,21	+	+	+	0	0
18,19	1	1	+	+	0
16,17	2	1	1	+	0
14,15	3	4	2	+	+
12,13	_6	14	9	1	0
10,11	6	16	14	2	+
8.9	2	7	4		+
6,7	+	+	+	+	+
4,5	0	+	+	+	0
≨3	+	+	+	+	0

7 Air Temperature Extremes

Marine Area B							
4529	Wii	nd Sp	eed	(kno	ts)		
TEMP	0-	4-	11-	22-	1 1		
(°c)	3	10	21	33	≩34		
≩22	0	+	0	0	0		
20,21	+	+	+	+	0		
18,19	+	1	1.	+	0		
16,17	1	2	2	+	0		
14,15	3	7	5	1	+		
12,13	6	17	12	2	+		
10,11	5	13	12	2	+		
8,9	1	3	3	1	+		
6,7	+	+	+	+	+		
4,5	0	0	0	0	0		
€3	0	+	+	0	0		

М	Marine Area C								
	3708	Wi	ود ه	eed	(kno	ts)			
	TEMP	0~	4 -	11-	22 -				
	(°C)	3	10	21	33	≩34			
	≥22	_ 0	+	+	0	0			
	20,21	_ +	-+	+	0	_0			
	18,19	+	1	+	+	0			
	16,17	2	2	1	+	0			
	14,15	5	8	_ 5	1	0			
	12,13	10	17	_13	2	+			
·	10,11	6	12	10	1	+			
	8,9	1	1	1	+	+			
	6,7	+	+	+	+	_ +			
	4,5	+	0	_ 0	+	_ 0			
	€3	+	0	0	0	0			

М	Marine Area D								
	12817	Wi	nd Sp	eed	(kno	ts)			
	TEMP	0-	4-	11-	22-	l			
	(°C)	3	10	21	33	≥34			
	≥20	+	+	+	0	0			
	18,19	+	+	+	+	0			
•	16,17	+	1	+	+	0			
	14,15	1	2	2	1	+			
	12,13	1	6	9	2	+			
	10,11	2	13	20	4	+			
•	8,9	1	8	15	ω	+			
	6,7	+	2	5	1	+			
	4,5	+	+	+	+	+			
	2,3	0	+	+	+	0			
	€1	+	+	+	0	0			



Kodiak					
24531	Wil	nd Sp	eed	(kno	ts)
TEMP	10-	4-	111-	22-	)
(°c)	3	10	21	33	≩34
≥22	+	+	+	+	0
20,21	+	1	1	+	0
18,19	1	1	1	+	0
16,17	2	4	2	+	0
14,15	3	7	2	+	0
12,13	9	16	4	+	0
10,11	10	18	6	+	+
8,9	3	4	1	+	+
6,7	1	1	+	+	0
4,5	+	+	0	0	0
≨ 3	+	+	0	0	0

Homer					
19225	Wi	nd Sp	eed	(kno	ts)
TEMP	10~	4-	11-	22-	
(°C)	3	10	21	33	≩34
≥ 20	+	+	+	0	0
18,19	+	1	+	0	.0
16,17	1	5	1	+	0
14,15	3	9	3	+	0
12,13	8	17	4	+	Ö
10,11	111	13	2	0	0
8,9	6	4	+	Q	Ō
6,7	4	3	+	0	0
4,5	2	. 1	0	0	0
2,3	1	1	0	0	_0
<u>≨</u> 1	+	+	0	0	0
	+	+	_	-	_

	inai					
	22023	Wie	nd Sp	eed	(kno	ts)
	TEMP	10-	4	11-	22-	1 1
	(°C)	3	10	_21	33	≩ 34
	₹22	+	+	+	0	0
	20,21	+	1	+	0	0
	18,19	+	2	+	0	0
	16,17	1	6	1	+	0
	14,15	1	9	3	+	0
	12,13	5	18	6	+	0
•	10,11	7	16	3	+	0
	8,9	3	5	1	0	0
•	6,7	3	3	+	0	0
	4,5		1	+	0	0
	<b>§</b> 3	2	1	0	0	0

An	chorego	•				
	23062	Wir	nd Sp	eed	(kno	ts)
	TEMP (°C)	0 -	10	11-	22 - 33	≥ 34
_	≩22	+	1	+	0	0
-	20,21	+	2	+	0	0
-	18,19	1	4	1	0	0
_	16,17	2	9	3	+	0
_	14,15	4	11	3	+	0
_	12,13	9	18	3	+	0
-	10,11	7	11	1	+	0
-	8,9	2	3	+	0	0
-	6,7	2	1	+	0	0
-	4,5	1	+	+	0	0
_	≨ 3	+	+	0	0	0

Valdez					
5778	Wii	nd Sp	eed	(kno	ts)
TEMP	0-	4-	11-	22-	1 1
(°C)	3	10	21	33	≩34
₹22	+	-	+	0	0
20,21	+	_2	+	0	0
18,19	+	2	+	0	0
16,17	1	7	1	0	0
14,15	3	8	1	0	0
12,13	9	11	1	0	0
10,11	21	10	+	+	0
8,9	12	3	+	0	0
6,7	5	1	0	0	0
4,5	1	+	0	0	0
≨3	+	+	0	0	0

М	iddleton					
	15688	Win	nd Sp	eed	(kno	ts)
	TEMP	0 -	4-	11-	22-	1 1
	(°C)	3	10	21	33	≥34
	≩22	0	+	0	0	0
	20,21	+	+	0	0	0
	18,19	+	+	+	0	0
	16,17	1	2	+	+	0
	14,15	2	8	2	+	+
	12,13	6	25	13	1	+
	10,11	7	20	8	,	+
	8,9	1	2	+	+	_0
	6,7	+	+	0	0	0
	4,5	0	0	0	0	0
	≤3	0	0	0	0	0

C	Propie					
	24352	Wi	nd Sp	eed	(kno	ts)
	TEMP	0-	4-	11~	22-	
	(°C)	3	10	21	33	≩34
	≩22	+	1	+	0	0
	20,21	+	2	+	0	0
-	18,19	1	2	+	0	0
	16,17	2	5	+	0	0
Ī	14,15	4	7	+	0	+
	12,13	11	1.1	1	0	+
•	10,11	16	12	1	0	0
	8,9	9	_3	+	0	0
	6,7	5	1	+	0	0
	4,5	3	+	0	0	0
	≨3	2	+	0	0	0

Yakutat					
19564	Wie	nd Sp	eed	(kno	ts)
TEMP	0-	4-	111-	22-	
(°C)	3	_ 10	21	33	≥34
≥ 22	+	+	+	0	0
20,21	+	. 1	+	0	0
18,19	+	1	+	0	0
16,17	7	4	+	+	0
14,15	2	9	2	+	0
12,13	7	20	5	+	0
10,11	10	16	4	+	0
8,9	4	4	1	+	0
6,7	4	1	+	0	<b>O</b>
4,5	_2	+	0	0	0
≨3	1	+	0	0	0
	<u></u>	·	<u>~</u>		

S	itka		_	_		
	22256	Wi	nd Sp	eed	(kno	ts)
	TEMP	0-	4-	11-	22-	1
	(°C)	_ 3	_10	21	33	≥34
	_≩22	+	+	+	+	0
	20,21	+	1	+	+	0
	18,19	1	2	1	+	0
	16,17	2	7	2	+	+
	14,15	4	11	2	+	0
	12,13	15	21	3	+	٥
	10,11	10	10	1	+	0
	8,9	2	1	+	0	0
	6,7	1	+	+	0	0
	4,5	+	+	0	0	0
	≨3	+	0	0	0	0

^'	nnette					
	18954	wi	nd Sp	eed	(kno	ts)
	TEMP	10-	4-	11-	22~	)
	(°C)	3	10	21	33	≥34
	≩24	+	1_	+	0	_0
	22,23	+	1	+	0	_ 0
	20,21	+	2	1	0	0
	18,19	+	3	1	0	0
	16,17	1	9	2	+	0
	14,15	3	13	3	+	0
	12,13	7	24	8	+	0
	10,11	. 5	10	3	+	_ 0
-	8,9	1	1	+	0	0
	6,7	+	+	0	0	0
	<b>≨</b> 5	+	0	0	0	0

Cape St. Jemes								
20827	Wi	nd Sp	eed	(kno	ts)			
TEMP	10-	4 -	11-	22 -	1 1			
(°C)	31	_10]	21	33	≩ 34			
≩22	+	+	0	0	0			
20,21	+	+	+	+	0			
18,19	+	1	+	+	0			
16,17	1	3	3	+	+			
14,15	2	_6	8	2	+			
12,13	4	14	22	8	+			
10,11		6	11	4	+			
8,9	+	+	+	+	0			
6,7	0	0	0	0	0			
4,5	0	0	0	0	0			
≨3	5	0	0	0	0			
	TEMP (°C) ≥22 20,21 18,19 16,17 14,15 12,13 10,11 8,9 6,7 4,5	TEMP (°C) 3 \$22 + 20,21 + 18,19 + 16,17 1 14,15 2 12,13 4 10,11 1 8,9 + 6,7 0 4,5 0	TEMP (°C) 3 10 2 2 4 + 20,21 + + 20,21 + 18,19 + 1 16,17 1 3 14,15 2 6 12,13 4 14 10,11 1 6 8,9 + 6,7 0 0 4,5 0 0	TEMP (°C) 3 10 21 \$\frac{22}{2} + + 0  20,21 + + + 1  18,19 + 1 + 1  16,17 1 3 3  14,15 2 6 8  12,13 4 14 22  10,11 1 6 11  8,9 + + +  6,7 0 0 0  4,5 0 0 0	TEMP 0- 4- 10 21 33 22 2 + + 0 0 0 20 20 21 + + + + + + 16,17 1 3 3 3 + 14,15 2 6 8 2 212,13 4 14 22 8 10,11 1 6 11 4 8,9 + + + + + + + 6,7 0 0 0 0 0 0 0			

To	ofino					
	16538	Wi	nd Sp	eed	(kno	ts)
	TEMP	0	4-	11-	22-	
	(°C)	3	10	21	_	
	≥ 24	<u> </u>	1	_+	0	_0
	22,23	+	1	+	0	Ō
	20,21	+	2	+	+	_0
_	18,19	1	3	1	+	_0
	16,17	2	8	3	+	0
-	14,15	6	12	3	+	0
	12,13	_18	18	3	+	_0
	10,11	9	4	+	0	_0
	8,9	3	+	0	0	0
	6,7	1	+	0	0	0
	≨5	+	0	0	0	_0

Quillayute	•				
7171	Wi	nd Sp	eed	(kno	ts)
TEMP	0	4-		22-	١ ا
(°C)	3	10	21	_	≩34
≥ 24	+	2	+	0	
22,23	+	2	+	+	0
20,21	_+	6	+	С	0
18,19	1	8	1	0	0
16,17	2	13	+	0	0
14,15	7	12	+	0	0
12,13	15	11	+	0	0
10,11	9	3	+	0	0
8,9	4	1	0	0	0
6,7	2	+	0	0	0
\$5	+	+	0	0	0

17999	Wi	nd Sp	eed	(kno	ts)
TEMP	10-	4-	11-	22-	ı
(°C)	3	10	21	33	≩ 34
≩ 24	+	1	+	+	_ 0
22,23	+	1	1	+	0
20,21	+	4	3	+	0
18,19	1_1	7	4	+	0
16,17	3	15	5	+	0
14,15	6	17	3	0	0
12,13	7	11	1	٥	0
10,11	3	3	+	0	0
8,9	1	1	0	0	0
6,7	+	+	0	0	0
€5	+	+	0	0	0

Astoria

18798	Wit	nd Sp	eed	(kno	ts)
TEMP	0-	4-	11-	22-	1
(°¢)	3	10	21	33	≥34
≩24	+	+	+	0	0
22,23	0	+	+	+	0
20,21	+	2	4	+	0
18,19	+	_4	7	1	0
16,17	2	10	. 8	2	+
14,15	4	13	5	1	+
12,13	6	15	4	+	0
10,11	_3	_ 7	-	+	0
8,9	_1	_ 1	+	0	0
6,7	+	+	0	0	0
≨5	0	0	0	0	0

North Bend

Ocean Station Vessel P							
750	33	Win	nd Sp	seed	(kno	ts)	
TEM		0-	4-	11-	22-	1	l
(°C		3	10	21	33	≥34	
₹2	2	0	0	0	0	0	}
20,2	1	0	0	0	0	0	
18,1	9	0	+	0	+	0	
16,1	7	_ +	+	+	+	+	
14,1	5	1	5	8	3	+	
12,1	3	_ 2	12	28	12	1	
10,1	1	1	5	14	5	+	
8,9		+	+	+	+	0	
6,7		0	0	0	0	0	
4,5		0	0	0	0	0	
•	3_	0	0	0	0	0	

August

**August** 

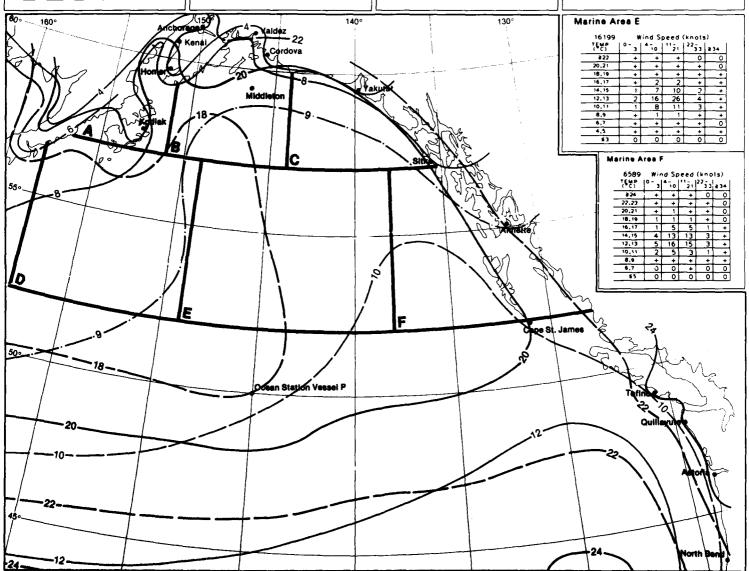
Marine Area A							
2967	Wi	nd Sį	eed	(kno	ts)		
TEMP	0-	4-	11-	22-	1 1		
(°C)	3	10	21		≥34		
₹22	0	+	0	0	0		
20,21	+	+	+	0	0		
18,19	+	-	+	+	0		
16,17	1	2	1	+	0		
14,15	Э	6	3	1	+		
12,13	6	17	13	2	+		
10,11	5	17	16	3	+		
0,9	+	1		+	0		
6,7	+	+	+	+	0		
4,5	+	+	0	0	0		
€3	+	0	0	0	0		

7 Air Temperature Extremes

Meri	ine Ai	• • 8				
	4407	Wie	nd Sp	eed	(kno	ts)
	EMP (°C)	0-3	4- 10	11-	22- 33	≥34
	≩22	0	0	0	0	0
	20,21	+	+	+	+	0
	8,19	+	+	+	+	0
	16,17	1	3	2	+	+
	4,15	4	11	7	1	+
	2,13	6	19	19	4	1
	0,11	2	7	7	1	+
	8,9	+	+	_ 1	+	+
	6,7	+	+	+	Ö	+
	4,5	0	0	0	0	+
_	≨3	0	0	0	0	0

Marine	Marine Area C							
416	1 Wi	nd Sp	eed	(kno	ts)			
TEMP	10-							
<u>(°C)</u>	3	10	21	33	≩34			
≩22	<u></u> +	_+	0	0	0			
20,21	+	+	+	0	0			
18,19	+	1	+	+	0			
16,17	2	3	2	+	+			
14,15	4	11	В	1	+			
12,13	6	15	16	3	+			
10,11	5	_8	7	1	+			
8,9	1	_2	1	+	0			
6,7	+	+	+	+	0			
4,5	+	+	+	+	0			
€3	0	_0	0	0	0			

rine A	res D	•			
13607	Wi	nd Sp	eed	(kno	ts)
TEMP	10-	4-		22-	ł
(°C)	3	10	21	33	≥34
≩22	+	+	0	+	0
20,21	+	+	+	+	0
18,19	+	+	+	+	_+
16,17	+	1	1	+	_+
14,15	1	4	6	2	+
12,13	1	10	20	6	+
10,11	_1	10	22	7	1
8,9	_+	3	3	1	+
6,7	+	+	+	+	+
4,5	+	+	+	+	0
≦3	0	+	+	0	0



Kodiek					
23650	Wii	nd Sp	eed	(kno	ts)
TEMP (°C)	0-3	4-	11- 21	22- 33	≥34
≩20	+	+	+	0	0
18,19	+	+	+	+	0
16,17	+	1	+	+	0
14,15	1	2	1	+	+
12,13	3	8	4	+	+
10,11	7	18	10	1	÷
8,9	6	10	6	1	0
6,7	4	6	2	+	+
4,5	1	2	1	+	+
2,3	1	1	+	+	+
<u>≨</u> 1	+	+	+	0	+

Н	omer					
	18731	Wie	nd Sp	eed	(kno	ts)
		0-	4-	11-	22-	1 )
	(°C)	3	10	21	33	≩34
	≩18	+	+	+	0	0
	16,17	+	+	+	0	0
_	14,15	1	2	1	+	0
	12,13	3	9	2	+	+
	10,11	7	15	4	+	0
	8,9	7	10	3	+	0
	6,7	8	8	1	+	+
	4,5	4	4	+	0	0
	2,3	ω	3	+	0	0
	0,1	2	2	+	0	0
	≦-1	1	1	+	0	Ö
•						

Ke	pnai					
	21385	Wil	nd Sp	eed	(kno	ts)
	TEMP	10~	4-	11-	22-	) (
	(°C)	3	10	21	33	≥34
	≩ 18	+	+	+	+	0
	16,17	+	1	+	0	0
	14,15	+	3	1	+	0
	12,13	2	8	3	+	0
	10,11	4	13	4	+	0
	8,9	4	11	3	+	0
	6,7	6	11	2	+	0
	4,5	3	5	1	+	0
	2,3	3	3	+	+	0
	0,1	3	2	+	+	0
	≦-1	2	1	+	0	0

Cordova

Anchorage							
22318	Wi	nd Sp	eed	(kno	ts)		
TEMP	0-	4-	11-	22-		ı	
(°C)	3	10	21	33	≩34	i	
≩ 18	+	+	+	0	0		
16,17	+		1	+	0		
14,15	1	3	1	+	0		
12,13	3	9	3	+	0		
10,11	6	14	3	0	0		
8,9	6	11	T 1	+	0		
6,7	7	10	1	+	0	l	
4,5	3	3	+	0	0		
2,3	3	2	+	+	0		
0,1	2	1	+	0	0		
<u>≨</u> -1	1	+	+	0	0		

Yelde	z					
4	956	Wie	nd Sp	eed	(kno	ts)
	MP	0-	4-	11-	22-	1 1
(	°C>	3	10	21	33	≩34
	≩ 18	+	+	+	0	0
1	6,17	+	1	+	+	0
1-	4,15	+	2	+	+	0
1.	2,13	2	6	1	+	0
11	0,11	7	10	1	0	0
	B,9	13	9	+	0	0
	5,7	18	8	+	0	0
	4,5	6	3	+	+	0
	2,3	3	2	+	+	0
	0,1	1	1	+	+	0
	≨-1	+	+	0	0	0

M	Middleton							
	15429	Wi	nd Sp	eed	(kno	ts)		
	TEMP (°C)	0 - 3	4 - 10	11 ~ 21	22 - 3 3	≥34		
	≥ 20	0	0	0	0	0		
_	18,19	0	0	0	0	0		
	16,17	+	+	0	0	0		
	14,15	+	1	1	+	0		
	12,13	2	11	8	1	+		
_	10,11	4	21	17	3	+		
-	8,9	3	11	7	1	+		
	6,7	1	4	2	+	0		
	4,5	+	+	+	+	0		
_	2,3	0	+	+	4	0		
	<u>≤</u> 1	0	0	0	0	0		

22937	Wil	nd Sp	eed	(kno	ts)
TEMP	0 -	4 -	11-	22-	1
(°C)	3	10	21	33	≩34
≱ 18	+	1	+	0	0
:6,17	1	2	+	0	0
14,15	1	3	+	0	0
12,13	4	8	2	+	0
10,11	8	12	3	+	0
8,9	10	10	. 1	+	0
6,7	10	6	1	+	0
4,5	5	2	+	0	0
2,3	5	1	+	0	0
0,1	3	+	0	0	0
≨-1	2	+	0	0	0

Yakutat					
18950	Wi	nd Sp	oeed	(kno	ts)
TEMP	10 -	4 -	11-	22-	1 1
(°C)	3	10	21	33	≥ 34
≩ 18	+	+	+	0	0
16,17	+	1	+	0	0
14,15	1	3	+	0	0
12,13	3	10	3	+	+
10,11	6	15	5	1	+
8,9	5	11	3	+	+
6.7	6	9	2	+	+
4,5	3	2	+	+	+
2,3	4	1	+	+	0
0,1	3	+	0	0	0
≦-1	1	+	0	0	0

\$ itka					
21425	Wi	nd Sp	eed	(kno	ts)
	0	4-		22-	١. ـ . ١
(°C)	3	10	21	33	≩34
≥ 20	+	+	+	+	+
18,19	+	1	+	+	0
16,17	1	2	-	+	0
14,15	2	5	2	+	0
12,13	8	15	6	+	+
10,11	11	16	4	+	+
8,9	7	7	1	+	0
6,7	4	3	+	+	0
4,5	1	1	+	0	0
2,3	+	+	+	0	0
<u>≨</u> 1	+	+	0	0	0

Aı	nette					
	18248	Wii	nd Sp	eed	(kno	ts)
	TEMP	10 -	4 -	11-	22-	1 1
_	(°C)	3	10	_21	33	≥34
	≩22	+	+	+	0	0
	20,21	+	1	+	0	0
	18,19	+	1	+	+	0
	16,17	+	4	1	+	0
	14,15	1	7	3	+	0
	12,13	3	18	8	1	+
•	10,11	5	18	8	1	+
	8,9	3	6	2	+	+
	6,7	2	3	+	+	0
•	4,5	1	+	+	0	0
	≨3	+	+	0	0	ō

Cape St. James							
20147	Wi	nd Sp	eed	(kno	ts)		
TEMP	0 ~	4-	11-	22-			
(°C)	3	10	21	33	≥34		
≥22	+	+	+	+	0		
20,21	+	+	+	+	0		
18,19	+	+	+	+	0		
16,17	1	2	1	+	0		
14,15	1	4	5	2	+		
12,13	3	11	18	9	2		
10,11	3	12	14	7	1		
8,9	+	2	1	+	+		
6,7	+	+	+	+	+		
4,5	0	0	0	0	0		
<u></u> ≨3	0	0	0	0	0		

To	ofino					
	15998	Wi	nd Sp	eed	(kno	ts)
	TEMP	0 -	4-		22 -	
	(°C)	3	10	21	33	≩34
	≥22	+	1	+	0	0
	20,21	1	1	+	0	0
	18,19	1	2	+	0	0
	16,17	2	5	2	+	0
	14,15	4	9	3	+	0
	12,13	12	15	4	+	0
	10,11	12	8	1	+	0
	8,9	6	2	+	+	0
	6,7	4	1	0	0	0
	4,5	1	+	0	0	0
	€3	+	+	0	0	0

Quilleyute								
6947	Wi	nd Sp	eed	(kno	ts)			
TEMP	0-	4-	11-	22-				
(°C)	3	10	21	33	≩34			
≥22	+	4	+	0	0			
20,21	+	3	+	0	0			
18,19	+	5	+	0	0			
16,17	2	11	1	0	0			
14,15	5	13	1	0	0			
12,13	9	11	1	0	0			
10,11	9	6	+	0	0			
8,9	6	2	0	0	0			
6,7	5	1	0	0	0			
4,5	2	+	0	0	0			
€3	1	+	0	0	0			

Astoria					
17411	Wi	nd Sp	eed	(kno	ts)
TEMP	10 -	4-	11-	22-	1 1
(°C)		10	21	33	≥ 34
≩ 24	+	1	1	0	0
22,23	+	1	1	0	0
20,21	+	3	1	+	0
18.19		5	2	+	0
16,17	3	12	4	+	0
14,15	5	12	3	+	Ö
12,13	7	13	2	+	0
10,11	5	6	+	0	0
6,9	2	3	0	0	0
6,7	1	2	0	0	0
€5	+	1	0	0	0

North Bend								
18193	Wi	nd Sp	eed	(krio	ts)			
TEMP	0-	4-	11-	22-	1 1			
(°C)	3	10	21	33	≩34			
≩ 24	+	+	+	0	0			
22,23	+	+	+	+	0			
20,21	+	1	2	+	0			
18,19	+	3	4	1	0			
16,17	2	9	7	1	+			
14,15	4	11	4	+	+			
12,13	6	15	3	+	+			
10,11	6	10	1	+	0			
8,9	2	3	+	0	0			
6,7	1	1	+	0	0			
<u>≨</u> 5	+	+	+	0	0			

0	Ocean Station Vessel P									
	7285 Wind Speed (knots)									
	TEMP (°C)	0 - 3	10	11- 21	22 - 33	≥ 34				
	≩22	0	0	0	0	0				
	20,21	_ 0	0	0	0	0				
	18,19	0	0	0	0	0				
	16,17	0	+	+	+	+				
	14,15	+	2	7	6	1				
	12,13	2	10	26	14	2				
	10,11	1	4	12	8	2				
•	8,9	+	+	1	1	+				
•	6,7	0	0	+	+	+				
	4,5	0	0	0	0	0				
	≨3	0	0	0	0	0				

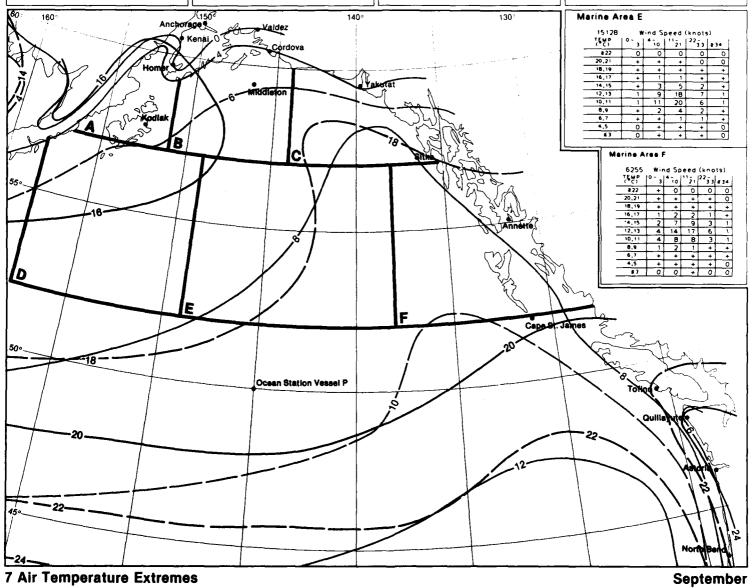
September

Marine A	• a A	,				
2205	Wi	nd Sp	eed	(kno	ts)	
TEMP (°C)	0-3	4-	11 21	22- 33	≩34	
≩20	0	0	0	+	0	
18,19	0	0	+	0	0	
16,17	+	+	+	+	0	
14,15	1	1	1	+	0	
12,13	3	6	_ 6	2	+	
10,11	5	17	22	4	1	
8,9	3	9	10	2	1	
6,7	+	1	2	1	+	
4,5	0	+	+	+	0	
2,3	0	ှ	+	0	+	
<b>≨</b> 1	0	0	0	0	0	

3990 Wind Speed (knots)  TEMP 0-   4-   11-   22-   (°C) 3 10 21 33 ≥34
(°C) 3 10 21 33 ≩34
<u>≥20 0 0 + + 0</u>
18,19 + + + + +
16,17 + 1 1 + 0
14,15 1 2 4 1 +
12,13 3 9 13 5 1
10,11 3 11 18 7 2
8,9 1 4 6 2 1
6,7 + 1 1 + +
4,5 0 + + + +
2,3 + + + 0 0
<b>≨</b> 1 0 0 0 0 0

s)
1
≥34
0
+
+
+
1
1
+
+
0
+
0

Marine Area D								
12927	Wi	nd Sp	eed	(kno	ts)			
TEMP (°C)	0-3	4 -	11- 21	22 - 33	≥34			
₹20	+	0	+	+	0			
18,19	0	+	+	+	+			
16,17	+	+	+	T +	+			
14,15	+	1	2	1	+			
12,13	1	5	13	7	1			
10,11	1	9	22	11	1			
8,9	1	4	9	4	1			
6,7	+	1	2	1	+			
4,5	+	+	+	+	+			
2,3	+	+	+	+	0			
≦ 1	+	0	+	0	0			



Kodiek					
24518	Wii	nd Sp	eed	(kno	ts)
	0-	4-	117~	22-	1 1
(°C)	3	10	21	33	≩34
≩14	+	+	+	+	0
12,13	+	+	+	+	_ 0
10,11	1	_3	_2	+	_ 0
8,9	2	6	5	1	+
6,7	5	11	8	2	+
4,5	4	7	6	1	+
2,3	4	7	5	1	+
0,1	3	5	2	+	+
-2,-1	1	2	1	+	+
-4,-3	1	2	+	+	+
≦-5	+	1	+	+	+

H	omer .					
	19432	Wie	nd Sp	eed	(kno	ts)
	TEMP	0-	4-	11-	22-	) )
	(°C)	3	10	21	33	≩34
	≥12	+	+	+	+	0
	10,11	1	2	1	+	0
	8,9	1	4	2	+	0
	6,7	4	9	4	+	0
	4,5	5	8	3	+	0
	2,3	6	10	2	+	0
	0,1	7	8	2	+	O
	-2,-1	3	4	+	+	0
	-4,-3	3	4	+	+	0
	-6,-5	1	2	+	0	0
	<b>≦</b> -7	1	2	+	+	0

Ke	nai					
	22077	Wia	nd Sp	eed	(kno	ts)
	TEMP	10-	[4-	11-	22-	
	(°C)	_3	_10	21	33	≩34
	≥ 10	+	2	1	+	0
	8,9	+	3	•	+	0
	6,7	2	_7	_3	+	0
•	4,5	2	8	_4	+	0
Ī	2,3	3	11	4	+	0
	0,1	5	11	3	+	0
-	-2,-1	3	5	1	+	0
	-4,-3	3	4	. 1	+	0
	-6,-5	2	2	+	+	0
ĺ	-8,-7	1	1	+	+	0
	≨-9	2	2	+	+	0

Anchorage							
23063	Wie	nd Sp	eed	(kno	ts)		
TEMP	0-	4-	11-	22~			
(°C)	3	10	21	33	≩ 34		
≩ 10	+	2	-	+	0		
8,9	1	3	1	+	_0		
6,7	2	7	2	+	0		
4,5	3	7	1	+	0		
2,3	5	12	1	+	0		
0,1	7	12	1	+	0		
-2,-1	4	6	1	+	0		
-4,-3	3	5	1	_0	0		
-6,-5	2	2	+	0	0		
-8,-7	1	1	+	0	0		
<u>≤</u> -9	2	2	+	0	0		

Veldez					
5622	Wi	nd Sp	eed	(kno	ts)
TEMP	10-	4-		22-	11
(°C)	3	10	21	33	
≩12	+	+	+	+	0
10,11	+		+	+	0
8,9	1_1	_ 3	_ 1	+	0
6,7	5	9	2	+	0
4,5	9	9	2	+	+
2,3	14	12	2	+	+
0,1	10	8	1	+	0
-2,-1	2	1	+	+	0
-4,-3	1	2	+	+	0
-6,-5	+	1	+	0	0
<b>≦</b> -7	+	1	1	0	0

Middleton					
15401	Wi	nd Sp	eed	(kno	ts)
TEMP	10-	4 -	11-	22-	1 1
(°C)	3	10	21	33	≥34
≥ 16	0	0	0	0	0
14,15	0	+	0	0	0
12,13	_+	+	+	+	0
10,11	+	3	_4	_2	+
8,9	1	7	11	3	1
6,7	3	13	17	5	_ 1
4,5	_2	_8	6	1	1
2,3	1	4	3	+	+
0,1	+	7	1	+	0
-2,-1	+	+	+	+	0
<u>≨</u> – 3	0	0	0	0	0

•						
	23249	Wi	nd Sp	eed	(kno	ts)
	TEMP	0 -	14-	11~	22-	1 1
	(°C)_	3	10	21	33	≥34
	≩ 14	+	+	+	+	0
	12,13	+	1	+	+	0
	10,11	1	3	-	+	0
	8,9	2	6	3	+	+
	6,7	5	12	4	+	0
•	4,5	6	11	_3	+	+
•	2,3	7	.7	1	_ +	_ 0
	0,1	8	4	+	+	_0
•	-2,-1	5	-	+	0	0
	-4,-3	_4	_ 1	+	0	0
	≨5	_3	+	0	0	0

Ya	kutet						
	19586	Wil	nd Sp	eed	(kno	ts)	
	TEMP	10 -	4 -	11~	22-		
	(°C)	3	10	21	33	≥ 34	
_	≥ 14	+	+	+	_0	0	
	12,13	+	1	+	+	0	
-	10,11		4	2	1	+	
_	8,9	1	_6	3	_ 1	+	
	6,7	4	14	6	1	+	
_	4,5	_3	11	4	+	+	
-	2,3	4	9	3	+	+	
-	0,1	5	5	1	0	0	
	-2,-1	3	2	+	+	0	
_	-4,-3	2	1	+	_0	0	
-	≨-5	1	+	0	_0	0	

Sitka					
22204	Wit	nd Sp	eed	(kno	ts)
	0-	4-	[11-	22-	1 1
(°C)	3	10	21	33	≥34
≥ 16	+	+	+	+	
14,15	_ +	_ +	+	+	+
12,13	1	2	3	+	+
10,11	3	9	7	1	+
8,9	4	11	7	1	+
6,7	5	14	7	1	+
4,5	4	7	2	+	0
2,3	3	4	1	+	0
0,1	2	1	+	0	0
-2,-1	+	_ +	+	0	0
<b>≨-3</b>	+	+	+	0	0

A	nnette					
	18846	Wi	nd Sp	eed	(kno	ts)
	TEMP	0-	4-	11-	22-	· Ł
	(°C)	3	_10	21	_ 33	≥ 34
Ċ	≥ 18	0	+	+	0	0
	16,17	+	+	+	+	0
	14,15	+	+	+	+	+
	12,13	+	2	2	_	+
	10,11	2	10	11	3	+
	8,9	2	11	9	_ 2	+
	6,7	4	12	7	2	+
	4,5	_ 2	6	2	+	0
	2,3	2	4	1	+	+
	0,1	+	1	+	+	0
	≨-1	+	+	+	0	0

Cape St. James						
20818	Wii	nd Sp	eed	(kno	ts)	
	0 -	4-	111-	122 -	1	
(°C)	3	10	21	33	≩ 34	
≥ 18	0	+	0	0	0	
16,17	+	+	+	0	0	
14,15	+	_+	+	+	+	
12,13	1	2	3	3	_ 1	
10,11	2	8	15	11	5	
8,9	2	8	10	7	3	
6,7	1	5	5	3	1	
4,5	+	1	1	+	+	
2,3	+	+	+	+	+	
0,1	0	+	0	+	0	
≨-1	0	0	0	0	0	

To	ofino						
	16262	Wit	nd Sp	eed	(kno	ts)	
	TEMP	10-	4-	11-	22 -	1 1	
	(°C)_	3	_10	21	33	≥34	
	≥ 18	+	+	+	0	0	
	16,17	+	1	+	+	0	
	14,15	1	2	1	+	+	
	12,13	4	9	5	1	+	
	10,11	9	13	7	1	+	
	8,9	7	8	2	+	+	
	6.7	8	6	1	+	0	
Ċ	4,5	4	3	+	+	0	
	2.3	3	1	+	0	0	
ľ	0,1	1	+	0	0	0	
	≨-1	+	+	0	0	0	

Quillayute						
7181	Wi	nd Sp	eed	(kno	ts)	
TEMP	10-	4-	[11-	22-	1 1	
(°C)	3	_ 10	21	33	≥ 34	
≥ 18	+	2	+	0	0	
16,17	+	2	+	0	0	
14,15	1	5	1	0	0	
12,13	3	14	3	+	0	
10,11	7	13	1	+	0	
8,9	6	6	1	0	0	
6,7	8	6	+	0	0	
4,5	5	3	+	0		
2,3	5	2	0	0	0	
0,1	3	1	0	0	0	
<b>5-1</b>	1	. +	0	0	0	

Astoria					
17897	Wi	nd Sp	eed	(kno	ts)
TEMP (°C)	0 - 3	4-	11-	22- 33	≥34
≩20	+	2	+	0	0
18,19	+	2	+	+	0
16,17	1	4	2	+	+
14,15	_ 2	_ 7	4	+	0
12,13	5	16	5	+	+
10,11	6	12	2	+	+
8,9	4	7	1	+	+
6,7	3	6	+	0	0
4,5	2	3	+	0	0
2,3	1	2	0	0	0
≨ 1	+	+	0	0	0

18804	Wie	nd Sp	eed	(kno	ts)
TEMP	10-	4-	111-	122 - 1	!
(°C)	3_	10	21	33	≥34
₹22	+	1	+	0	0
20,21	+	1	+	+	0
18,19	+	2	1	+	0
16,17	1	5	3	+	+
14,15	_ 2	9	_ 3	_ +	_ 0
12,13	_ 5	16	4	+	+
10,11	6	15	2	+	+
8,9	3	7	1	0	0
6,7	_ 2	_ 6	+	+	0
4,5	1	2	+	0	0
€3	+	1	+	0	0

North Bend

0	Ocean Station Vessel P								
	7415 Wind Speed (knots)								
	TEMP	0-	0- 14- 111- 122- 1						
	(°C)	3	10	21	33	≥34			
	≩ 20	_0	0	0	0	_ 0			
	18,19	0	0	0	0	0			
	16,17	0	0	0	0	0			
	14,15	+	+	+	1	+			
	12,13	+	2	6	7	2			
	10,11	1	4	13	14	5			
	8,9	+	3	11	12	5			
	6,7	+	1	4	5	2			
	4,5	+	+	+	1	+			
	2,3	0	0	+	+	+			
	≨ 1	0	0	0	0	0			

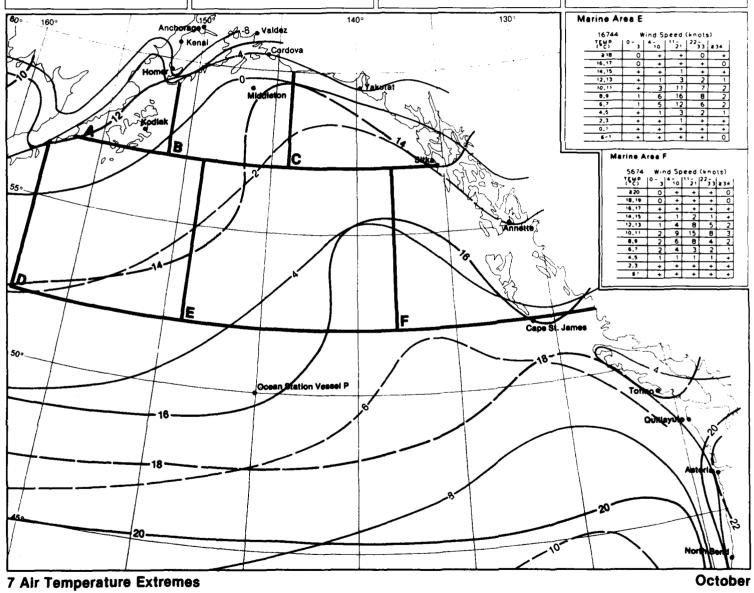
October

Marine Area A								
1938	Win	nd Sp	eed	(kno	ts)			
	0-	4-	111-	22-	1 1			
(°C)	3	10	21	33	≥34			
≥ 16	+	0	+	0	0			
14,15	0	+	0	0	0			
12,13	+	+	+	+	0			
10,11	1	2	3	1	+			
8,9	2	9	13	4	1			
6,7	2	8	15	5	1			
4,5	2	5	7	2	1			
2,3	1	_2	4	2				
0,1	+	1	1	1	+			
-2,-1	0	+	+	+	+			
≨-3	0	+	+	+	+			

Marine Area B								
4174	Wit	nd Sp	eed	(kno	ts)			
TEMP	0-	4-	111-	22-	1 1			
_ (°C)	3	10	21	33	≥34			
≩ 16	0	+	+	+	0			
14,15	+	+	+	+	0			
12,13	+	1	1	1	+			
10,11	1	3	6	4	1			
8,9	1	7	13	6	2			
6,7	2	8	13	6	2			
4,5	1	4	5	2	1			
2,3	+	1	2	1	1			
0,1	+	+	1	+	+			
-2,-1	+	+	+	+	+			
≦-3	0	+	+	+	+			

Marine Area C								
4004	Wit	nd Sp	eed	(krio	ts)			
TEMP (°C)	0 - 3	4- 10	11- 21	22 - 33	≩34			
≩ 18	0	0	0	0	0			
16,17	0	0	+	0	0			
14,15	+	+	+	+	+			
12,13	( +	1	1	1	+			
10,11	1	4	8	5	2			
8,9	2	9	16	6	2			
6.7	2	10	10	4	1			
4,5	1	3	2	1	1			
2,3	+	+		1	+			
0,1	+	+	1	1	+			
≦-1	+	+	+	+	0			

М	Marine Area D									
	12943	Wii	nd Sp	eed	(kno	ts)				
	TEMP (°C)	0-3	4-	11- 21	22- 33	≩34				
	≩18	0	+	+	+	+				
	16,17	+	+	+	+	+				
	14,15	+	+	+	+	+				
	12,13	+	1	1	1	+				
	10,11	1	3	7	4	1				
	8,9	1	5	14	10	2				
	6,7	1	4	14	10	3				
	4,5	+	2	5	4	2				
	2,3	+	+	1	1	+				
	0,1	+	+	+	1	+				
	≦-1	+	+	+	+	+				



# Kodiak 24436 Wind Speed (knots) TEMP (°C) 3 10 21 33 ≥3 ≥10 0 + + + + + 8,9 + + + + + 6,7 1 4 5 2 4 5 2 - 7 2 - 7

н	omer						
	18742	Wie	nd Sp	eed	(kno	ts)	
	TEMP	0 -	4-	11-	22-	1 1	
	(°¢)	3	10	⊋1,	33	≥34	
	≩8	+	+	+	+	0	
	6,7	1	2	2	+	+	
	4,5	1	_ 4	3	+	0	
	2,3	3	8	3	+	0	
	0,1	7	9	2	+	0	
	-2,-1	4	_6	1	+	0	
	-4,-3	4	7	_ 1	+	0	
	-6,-5	2	5	1	+	_0	
	-8,-7	2	5	1	+	0	
	-10,-9	2	4	1	+	0	
	≨~11	2	5	+	0	0	

21321	Wii	nd Sp	eed	(kno	ts)
TEMP	0 ~	4-	11-	22-	1
(°C)	3	10	21	33	≥34
≩4	1	3	2	+	+
2,3	1	_5	4	+	0
0,1	3	9	_5	+	0
-2,-1	2	5	3	+	0
-4,-3	3	7	2	+	0
-6,-5	2	4	i	+	0
-8,-7	2	_4	1	+	+
-10,-9	2	4	1	+	0
-12,-11	1	2	+	+	0
-14,-13	2	3	+	+	0
≦-15	7	7	+	+	0

A	Anchorage								
	23030	Wi	nd Sp	eed	(kno	ts)			
	TEMP	10-	4 -	11-	22-				
	(°C)	3	10	21	33	≥34			
	≩4	+	2	3	+	0			
	2,3	1	3	1	+	+			
	0.1	3	7	1	+	Q			
	-2,-1	3	7	1	+	+			
	-4,-3	4	10	1	+	0			
	-6,-5	3	7	1	0	0			
	-8,-7	4	7	1	+	0			
	-10,-9	4	5	1	+	0			
	-12,-11	3	3	+	+	0			
	-14,-13	3	2	+	+	0			
	≨-15	7	2	+	0	0			

Valdez					
5658	Wir	nd Sp	eed	(kno	ts)
	0-	4 -		22-	
<u>(°C)</u>	3	10	21	33	≩ 34
	0	0	+	0	0
5,7	+	+	+	0	0
4,5	+	1	+	+	0
2,3	2	5		+	0
0.1	14	12	2	+	0
-2,-1	8	9	2	+	0
-4,-3	7	10	2	+	+
-6,-5	3	5	2	+	+
-8,-7	2	3	2	+	0
-10,-9	1	2	1	+	0
≦-11	+	2	1	0	0

M	iddleton					
	14612	Wii	nd Sp	eed	(kno	ts)
		0 -	4 -	11-	22~	1 1
	(°Ç)	3	10	21	3 3	≥34
	≥ 14	0	0	0	0	0
	12,13	0	0	0	0	0
	10,11	0	+	+	+	+
	8,9	+	+	1	1	+
	6,7	1	6	12	5	- 1
	4,5	2	10	12	4	1
	2,3	2	11	10	2	1
	0,1	1	5	4	1	+
	-2,-1	+	1	1	1	+
	-4,-3	+	+	1	1	+
	<u>≤</u> -5	+	+	+	+	+

C	ordove					
	22714	Wit	nd Sp	eed	(kno	ts)
	TEMP	0~	4 -	11-	22-	1 1
	(° <u>C</u> )	3	10	21	33	≥ 34
	≥8	+	1	1	+	+
	6,7	1	4	3	+	0
	4,5	2	7	4	+	0
	2,3	5	10	3	+	0
	0,1	9	7	1	+	0
	-2,-1	6	3	+	0	0
	-4,~3	7	2	+	0	0
	-6,-5	5	1	+	0	0
	-8,-7	4	1	+	0	0
	-10,-9	4	+	+	0	0
	≦-11	8	1	+	0	0

Y	kutet					
	18953	Wil	nd Sp	eed	(kno	ts)
	TEMP	0 -	4- !	11-	22 -	
	(°C)	3	10	21	33	≥34
	≥ 10	+	_+	+	+	<u>+</u> ;
	8.9	+	+	1	+	+
	6,7	1	3	4	1	+
	4,5	1	6	4	1	+
	2,3	_3	1.1	4	+	+
	0,1	6	15	3	+	0
	-2,-1	4	€	1	+	0
_	-4,-3	5	4	1	+	0
	-65	3	٦	+	+	0
•	-8,-7	2	1	+	+	0
	≨-9	4	1	+	+	0]
_						

Sitke					
21709	Wis	nd Sp	eed	(kno	ts)
TEMP	0 -	4	11-	22 -	ı i
(°C)	3	10	21	33	≥34
≥ 14	0	+	+	+	0
12,13	+	+	1	+	0
10,11	+	T 1	2	+	+
8,9	1	3	4	1	+
6,7	2	9	9	1	+
4,5	3	10	6	1	+
: 3	5	11	4	+	+
0,1	5	7	2	+	+
-2,-1	2	3	1	+	0
-4,-3	1	2	+	+	0
≨-5	1	_2	1	+	0

_ "	nette					
	18243	Wie	nd Sp	eed	(kno	ts)
	TEMP	0-	4 -	11-	22-	1 1
	(°C)	3	10	21	33	≥34
_	≩ 14	+	+	+	+	0
	12,13	+	+	+	+	+
	10,11	+	1	2	1	+
	8,9	+	_2	5	2	+
_	6,7	1	9	12	_3	_+
	4,5	2	8	_ 7	_2	+
	2,3	3	10	6	1	+
	0,1	3	6	2	+	0
_	-2,-1	1	2	1	+	0
	-4 - 3	+	2	- 1	+	0
	≨-5	+	2	1	+	0

Cape St. James										
	20159 Wind Speed (knots)									
	TEMP	0 -	4 -	11-	22 -					
	(°C)	3	10	21	33	≥ 34				
	≥ 16	0	0	0	0	0				
	14,15	0	_+	0	+	0				
	12,13	+	+	+	+	+				
	10,11	+	1	3	3	2				
	8,9	1	3	9	8	4				
•	6,7	2	_ 8	14	11	5				
	4.5	1	4	5	3	1				
	2,3	1	3	2	1	1				
	0,1	+	1	1	1	+				
	-2,-1	+	+	+	+	+				
	≨-3	+	+	+	+	0				

To	fino					
	15953	Win	nd Sp	eed	(kno	ts)
	TEMP (°C)	0 - 3	4-10	11-	22 - 33	≥ 34
-	≥ 16	+	+	+	0	0
_	14,15	+	+	+	0	0
	12,13	+	1	1	+	+
	10,11	3	6	5	1	+
	8,9	4	8	5	1	+
	6,7	8	12	4	+	+
_	4,5	7	7	1	+	+
_	2,3	5	6	1	+	+
	0,1	4	4	+	0	0
_	-2,-1	2		+	0	0
_	≨-3	_ 1	+	0	0	0

Quillayute								
6937	wi	na Si	peed	(kro	ts)			
TEMP	0 -	4 -		22-	i I			
(°C)	3	10	21	33	≩34			
≥ 16	+	+	+	0	0			
14,15	+	1	+	0	0			
12,13	1	3	1	0	0			
10,11	2	11	4	+	0			
8,9	4	12	2	+	0			
6,7	7	15	1	+	0			
4,5	5	8	+	0	0			
2,3	5	6	+	+	0			
0,1	4	3	+	0	0			
-2,-1	2	1	+	0	0			
<b>6</b> -3	1	+	+	0	0			

A	storia					
	17333		nd Sp	eed	(kno	ts)
	TEMP	0 -	4 -	11-	22-	1 1
	(°C)	3	10	21	_33	≩ 34
	≥ 18	+	+	+	0	0
	16,17	+	+	+	+	0
	14,15	+	1	_ 1	+	+
	12,13	2	6	5	1	+
	10,11	5	12	6	1	+
	8,9	4	10	3	_ +	+
	6,7	_ 5_	11	2	+	0
	4,5	3	5		٠,	0
	2,3	3	5	1		0
•	0,1	1	3	+	+	0
•	<b>≨</b> −1	1	1	+	+	_0
•						

orth Ben	a				
18207	Wi	nd Sp	eed	(kno	ts)
TEMP	10 -	4 ~	11~	22-	Ì
(°¢)	3	10	21	33	≥ 34
≥ 18	+	1	+	0	0
16,17	+	1	1	+	+
14,15	1	4	_2	+	0
12,13	?	_11	6	+	+
10,11	T	16	_5	+	+
8,9	3	11	_2	+	+
6,7	2	11	2	+	0
4,5	1	_ 5	1	+	0
2,3	1	4	+	0	0
0,1	+	1	+	0	0
<b>5-1</b>	+	+	+	0	Ô

Ocean Station Vessel P										
	7282 Wind Speed (knots)									
	TEMP	0-	4-	11-	22 - 1	. 1				
	(°C)	3	10	21	33	≥ 34	1			
	≥ 16	0	0	0	0	0				
	14,15	0	0	0	+	0				
	12,13	+	+	+	+	+				
	10,11	+	1	2	4	2				
	8,9	+	2	9	12	5				
	6,7	1	_4	14	17	7				
	4,5	+	2	5	5	3				
	2,3	+	+	1	1	1				
	0,1	0	+	+	+	+				
	-2,-1	0	0	0	0	0				
	≨-3	0	0	೦	0	0				

November

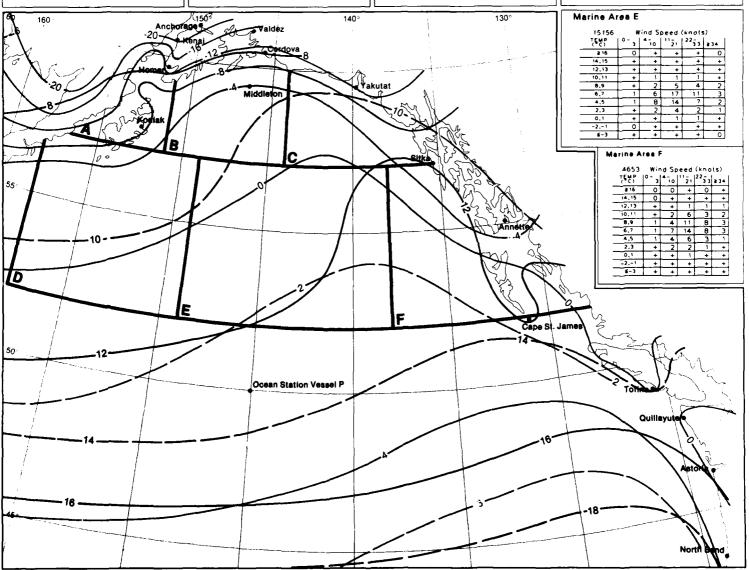
7 Air Temperature and Wind Speed

Marine A	•• A				
1669	Wie	nd Sp	eed	(kno	ts)
TEMP (°C)	0-3	4-	11-	22- 33	≥34
≩12	0	+	+	0	+
10,11	+	+	_ +	0	+
8,9	1	1	1	1	_ +
6,7	2	2	7	3	1
4.5	3	8	_14	5	2
2,3	1	6	_11	4	1
0,1	1	3	_ 6	2	1
-2,-1	+	1	_ 3	1	+
~4,-3	+	1	_ 2	1	+
-6,-5	0	1	1	+	+
<u>≨-7</u>	+	+	+	+	+

Marine Area B								
4132	Wii	nd Sp	eed	(kno	ts)			
TEMP (°C)	0-3	4-	11-	22~ 33	≥ 34			
≩ 14	0	+	+	0	0			
12,13	0	+	+	+	0			
10,11	0	+	+	+	+			
8,9	+	1	2	ī	1			
6,7	1	5	10	6	3			
4,5	2	9	13	5	3			
2,3	2	9	8	4	2			
0,1	1	4	3	1	1			
-2,-1	+	1	1	+	+			
-4,-3	+	+	+	+	+			
≦-5	+	+	+	+	0			

Marine Area C								
	3444	Wi	nd Sp	eed	(kno	ts)		
	TEMP	0-	4-	111-	22-	1 1	ı	
	(°C)	3	10	21	33	≥34	1	
_	≥ 14	0	+	+	+	+		
	12,13	0	+	+	+	0		
	10,11	÷	+	1	+	+		
	8,9	+	2	4	3	1		
	6,7	1	6	12	9	3		
	4,5	2	7	13	5	_2		
•	2,3	2	6	7	2	1	1	
	0,1	2	2	3	2	+		
-	-2,-1	+	1	+	+	+	]	
	-4,-3	0	+	+	+	+	]	
•	≦-5	0	+	+	+	+	1	
							•	

Marine Area D								
12047	Wir	nd Sp	eed	(kno	ts)			
TEMP (°C)	0-3	4- 10	11- 21	22- 33	≥ 34			
≥ 14	0	0	+	+	0			
2,13	+	+	+	+	+			
10,11	+	+	+	+	+			
8,9	+	1	2	2	1			
6,7	+	4	13	11	3			
4,5	1	5	16	12	3			
2,3	+	2	7	5	2			
0,1	+	+	2	2	1			
-2,-1	+	+	+	+	+			
-4,-3	0	+	+	+	+			
<b>≨</b> -5	0	+	+	+	+			



7 Air Temperature Extremes

November

#### Kodiek

24301	Wil	nd Sp	eed	(kno	ts)
TEMP	10-	4-	111-	22-	1 1
(°C)_	3	10	21	33	[≩34 [
₹8	+	+	+	+	+
6,7	+	1	1	1	+
4,5	1	4	5	1	+
2,3	4	.8	7	1	+
0,1	5	-8	6	1	+
-2,-1	3	5	3	1	+
-4,-3	2	4	3	1	+
-6,-5	. 1	.2	2	1	+
-0,-7	1	3	3	1	+
-10,-9	1	2	2		+
< 11					

# Homer

19353 Wind Speed (knots)									
TEMP	0-	4-	11-	22-	. !				
(°C)	3	10	21	33	₹34				
≩4	+	_ 2	_ 2_	_+	0				
2,3	2	5	4	+	0				
0,1	3	7	3	+	0				
-2,-1	_3	5		_+	0				
-4,-3	4	7	2	+	+				
-6,-5	_3	5	1	+	0				
-8,-7	4	6	1	+	0				
-10,-9	_3	5	1	+	0				
-12,-11	_2	3	_1	+	0				
-14,-13	_2	4	+	_+	0				
<b>≨</b> -15	3	6	+	0	0				

#### Kenei

22039 Wind Speed (knots)								
TEMP	0 -	4-	11-	22-	1 1			
(°c}_	3	10	21	33	≩34			
≧-2	_ 2	9	8	1	+			
-4,-3	2	5	3	+	_ 0			
-6,-5	2	4	2	+	0			
-8,-7	_3	5	2	+	0			
-10,-9	3	5	1	+	0			
-12,-11	_ 2	3	1	+	+			
-14,-13	2	3	+	+	0			
-16,-15	2	3	+	+	0			
-18,-17	2	. 3	+	+	0			
-20,-19	2	_ 2	+	+	0			
≦~21	9	8	+	0	0			

## Anchorage

23806 Wind Speed (knots)								
TEMP	0-	4-	11-	22-	1 1			
(°C)	3	10	21	33	≩34			
≩0	1	5	2	+	0			
-2,-1	_2	4	1	0	0			
-4,-3	4	8	1	+	0			
-6,-5	3	5	1	+	0			
-8,~7	4	7	1	+	+			
-10,~9	4	6	1	+	+			
-12,-11	2	3	1	+	0			
-14,~13	4	4	1	+	0			
-16,-15	2	2	1	0	0			
-18,-17	4	2	+	4	0			
≤-19	9	4	+	+	0			

### Valdez

5710	Wi	nd Sp	eed	(kno	ts)
TEMP (°C)	0 - 3	10	11- 21	22-	≥34
≥4	0	+	1	+	0
2,3	1	1	1	+	0
0,1	11	7	1	+	0
-2,-1	7	5	1	+	0
-4,-3	7	7	2	+	+
-6,-5	4	5	1	+	0
-8,-7	3	9	3	+	0
-10,-9	2	6	3	+	+
-12,-11	1	3	2	+	0
-14,-13	1	2	_2	+	0
≦~15	1	2	1	+	+

## Middleton

15771	15771 Wind Speed (knots)									
TEMP	0-	4- :	111-	22-	1 1					
(°C)	3	10	21	33	≥ 34					
≥10	0	0	0	_0	0					
6,9	0	0	+	+	+					
6,7	+	1	2	1	+					
4,5	1	4	8	4	T					
2,3	_ 2	11	14	4	1					
0,1	_ 2	7	8	2	+					
-2,-1	1	3	4	1	+					
-4,-3	1	4	4	1	+					
-6,-5	+	1	2	1	+					
-8,-7	+	+	1	+	+					
≨-9	0	0	+	+	0					

## Cordova

23739 Wind Speed (knots)								
TEMP (°C)	0-3	4-	11-	22- 33	≥ 34			
≥4	+	4	3	+	+			
2,3	2	9	4	+	+			
0,1	7	9	2	+	+			
-2,-1	5	4	1	0	0			
-4,-3	5	3	1	0	0			
-6,-5	4	2	+	0	0			
-8,-7	5	2	+	0	0			
-10,-9	5	1	+	+	0			
-12,-11	3	1	+	0	0			
14,-13	4	1	+	0	0			
≨-15	11	1	+	٥	0			

#### Yekutet

19586	Wi	nd Sp	eed	(kno	ts)
TEMP	0-	4-	11-	22-	
(°C)	3	10	21	33	≥ 34
₹6	+	+	1	+	+
4,5	+	_2	3	1	+
2,3	1	8	5	1	+
0,1	4	14	5	1	+
-2,-1	4	5	2	+	+
-4,-3	4	6	2	+	0
-6,-5	3	3		+	_0
-8,-7	3	3		+	0
-10,-9	3	2	1	+	0
-12,-11	1	1	+	+	0
≨-13	6	3	+	+	0

#### Sitka

22426	w:	nd Sr		(kno	(a)
TEMP	0-	4-	11~	22-	
(°C)	3	10	21	33	₹34
≥ 10	0	+	1	+	+
8,9	+	+	_2	+	+
6,7	+	3	7	1	+
4,5	2	7	6	1	+
2,3	5	12	5	+	+
0,1	Ž	1.1	3	+	+
-2,-1	3	4	1	+	0
-4,-3	3	. 3	1	+	0
-6,-5	1	2	1	0	+
-87	1	1	+	+	0
≨-9	1	3	1	+	0

#### Annette

18838 Wind Speed (knots)								
TEMP	0-	4 -	11-	22-				
(°C)	3	10	21	33	≥34			
≥12	+	+	+	+	0			
10,11	+	+	1	+	+			
8,9	+	+	2	1	_+			
6,7	+	3	7	3	+			
4,5	1	6	8	2	+			
2,3	3	10	7	2	+			
0,1	4	11	3	1	+			
-2,-1	2	4	2	+	0			
-4,-3	1	3	1	+	_0			
-6,-5	+	_2	1	+	0			
<b>≦</b> -7	+	3	2	+	0			

#### Cape St. James

20799	20799 Wind Speed (knots)									
TEMP	0-	4 -	11-	22-	1 1					
(°C)	3	10	21	33	₹34					
≩ 14	0	0	0	0	0					
12,13	0	0	0	0	0					
10,11	+	+	+	+	+					
8.9	+	+	_ 2	_5	4					
6,7	1	4	12	13	7					
4,5	1	5	8	6	4					
2,3	1	5	5	_3	2					
0,1	+	2	2	1	1					
-2,-1	+	1	1	1	+					
-4,-3	+	1	1	+	+					
≨-5	+	+	+	+	+					

## Tofino

16612	Wie	nd Sp	eed	(kna	ts)
TEMP	0 -	4-	11-	22-	1 1
(°C)	3	10	21	33	≥34
≧ 14	0	0	+	+	0
12,13	+	+	+	+	0
10.11	1	2_	4	1	+
8,9	2	6	_ 5		+
6,7	6	9	5	1	+
4,5	6	7	2	+	+
2,3	7	8	2	+	0
0,1	7	8	1	+	0
-2,-1	4	2	+	0	0
-4,-3	1	1	+	0	0
≨-5	1	1	+	0	0

#### Quilleyute

7164	Win	nd Sp	eed	(kno	ts)
TEMP	10-	14-	[11-	22-	1
(°C)	3	10	21	33	≩34
≥ 14	Ö	+	+	0	0
12,13	0	+	+	0	0
10,11	+	5	4	+	0
8,9	1	9	2	0	0
6,7	5	13	2	+	0
4,5	4	9	1	+	0
2,3	6	10	1	0	0
0,1	В	7	+	0	0
-2,-1	3	2	+	0	0
-4,-3	2	1	+	+	٥
<b>6-5</b>			1	0	0
	نـــا				

# Astoria

17940	Wis	nd Sp	eed	(kno	ts)
TEMP (°C)	0-3	10	11-	22 - 33	≥ 34
₹16	+	+	+	+	0
14,15	+	+	+	+	+
12,13	+	1	2	1	+
10,11	1	6	7	1	+
8,9	2	8	4	+	+
6,7	5	14	4	+	+
4,5	4	9	2	+	0
2,3	3	9	1	+	0
0,1	2	5	1	+	0
-2,-1	1	2	+	0	_0
≨-3	+	1	1	+	0

#### North Bend

18814	Wii	nd Sp	eed	(kno	ts)
TEMP (°C)	0-3	4-	11-	22-	≥34
≥ 18	+	+	+	+	0
16,17	+	+	+	+	+
14,15	+	1	1	+	+
12,13	1	6	4	+	0
10,11	3	12	5	+	+
8,9	2	11	4	+	+
6,7	2	16	4	+	+
4,5	1	9	2	+	0
2,3	1	7	1	+	0
0,1	1	3	+	0	0
≨-1	+	1	+	0	0

# Ocean Station Vessel P

7424	124 Wind Speed (knots)						
TEMP	0-	4- 1	11-	(22 - 1	i		
(°C)	3	_10_	21	33	≥34		
≩ 14	0	_ 0	_0	0	0		
12,13	0	0	0	0	0		
10,11	0	0	+	+	+		
8,9	+	+	_1	4	2		
6,7	1	4	15	18	7		
4,5	1	4	12	11	5		
2,3	+	1	4	5	2		
0,1	+	+	+	1	1		
-2,-1	0	0	+	+	+		
-4,-3	0	0	0	0	0		
≨-5	0	0	0	0	Û		

December

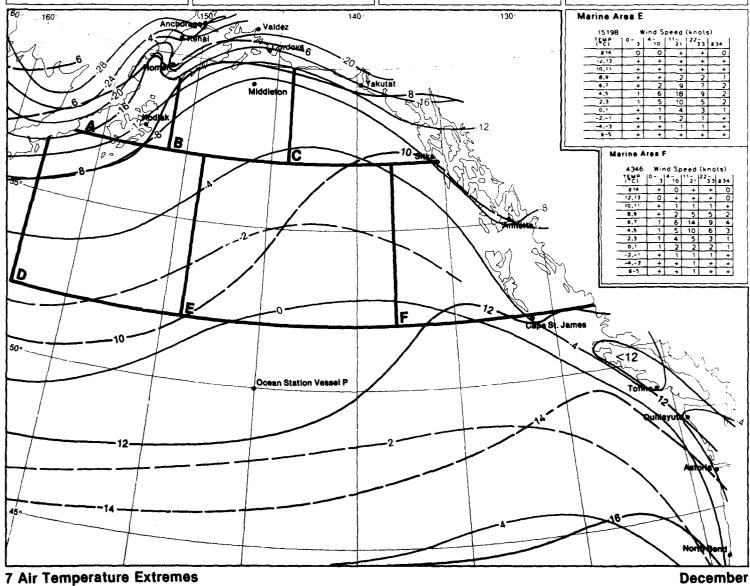
7 Air Temperature and Wind Speed

Marine Area A									
1210 Wind Speed (knots)									
TEMP	0-	4-	11-	22~	1 1				
(°c)	3	10	21	33	≥34				
₹10	0	+	+	0	0				
8,9	+	+	+	+	+				
6,7	+	2	3	2	+				
4,5	1	5	13	4	1				
2,3	1	8	14	4	1				
0,1	+	4	9	2	+				
-2,-1	+	2	5	2	+				
-4,-3	+	2	3	1	1				
-6,-5	+	1	1	1	+				
-8,-7	+	1	1	+	+				
≨-9	+	+	+	+	J.				

М	Marine Area B							
	3652	Wi	nd Sp	eed	(kno	ts)		
	TEMP	10-	4-	[11-	(22- )	1 1		
	(°C)	. 3	10	21	33	≥34		
	₹12	0	0	+	0	0		
	10,11	+	0	+	+	0		
	8,9	+	+	1	+	+		
	6,7	+	2	4	3	2		
•	4,5	1	6	11	5	3		
•	2,3	1	7	12	6	3		
•	0,1	1	5	7	3	1		
	-2,-1	+	2	4	2	1		
	-4,-3	+	1	3	1	+		
	-6,-5	+	+	1	+	1		
•	≨-7	0	+	+	+	+		

Ma	Marine Area C									
	3183 Wind Speed (knots)									
	TEMP (°C)	0-3	10	11- 21	22-	≥34				
	≩12	0	0	0	0	0				
	10,11	+	+	+	+	+				
	8,9	+	+	1		+				
	6,7	+	3	6	5	2				
	4,5	1	7	16	9	3				
	2,3	2	7	10	5	2				
	0,1	1	3	4	_2	1				
	-2,-1	+	1	2	1	7				
	-4,-3	+	1	1	1	+				
_	-6,-5	0	+	+	+	+				
	≦-7	+	+	_1	+	+				

M	larine Aı	• • D	,				
	10432	Wi	nd Sp	eed	(kno	ts)	
		10-	4-	11~	22 -	1	1
	(°C)	_ 3	10	21	33	≥34	
	≥ 12	+	+	+	+	0	
	10,11	+	+	+	+	_+	
	8,9	+	+	1	+	_+	
	6,7	+	1	5	5	2	
	4,5	+	5	16	13	4	
	2,3	1	5	12	8	_ 3	
	0,1	+	1	4	3	1	
	-2,-1	+	+	1	1	1	
	-4,-3	+	+	_ 1	1	1	
	-6,-5	+	+	+	+	+	
	<u>≤</u> -7	+	+	+	+	+	



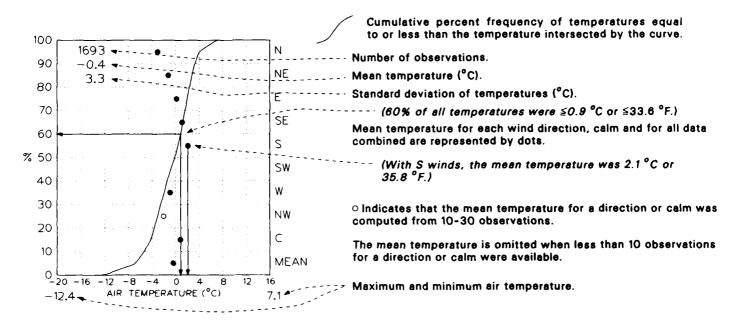
# Map 8. Air temperature mean and frequency ≤0°C

BLACK LINE – Mean air temperature (°C).

BLUE LINE - Percent frequency of temperature ≤0°C (≤32°F).

Albers Equal—Area Conic Projection

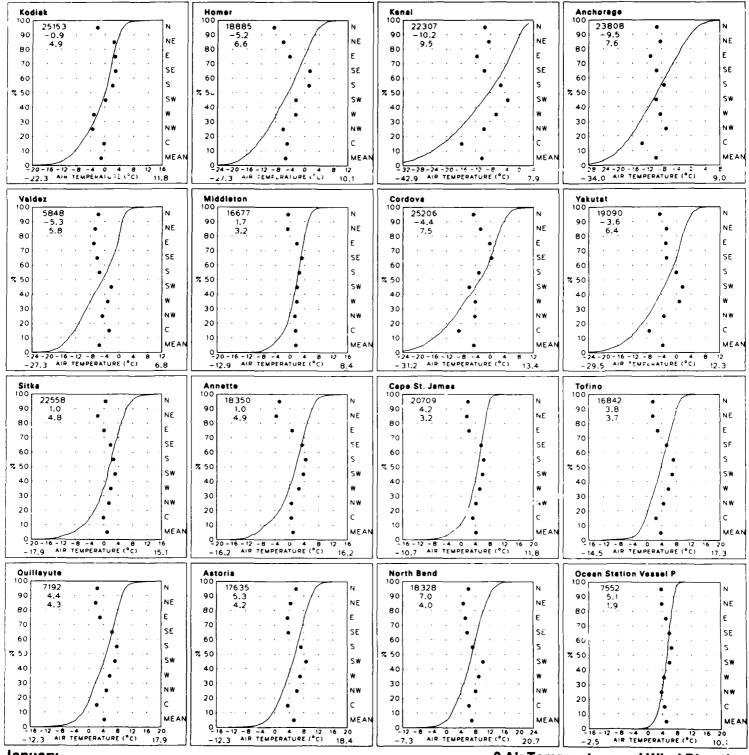
# Graphs: Air temperature/wind direction



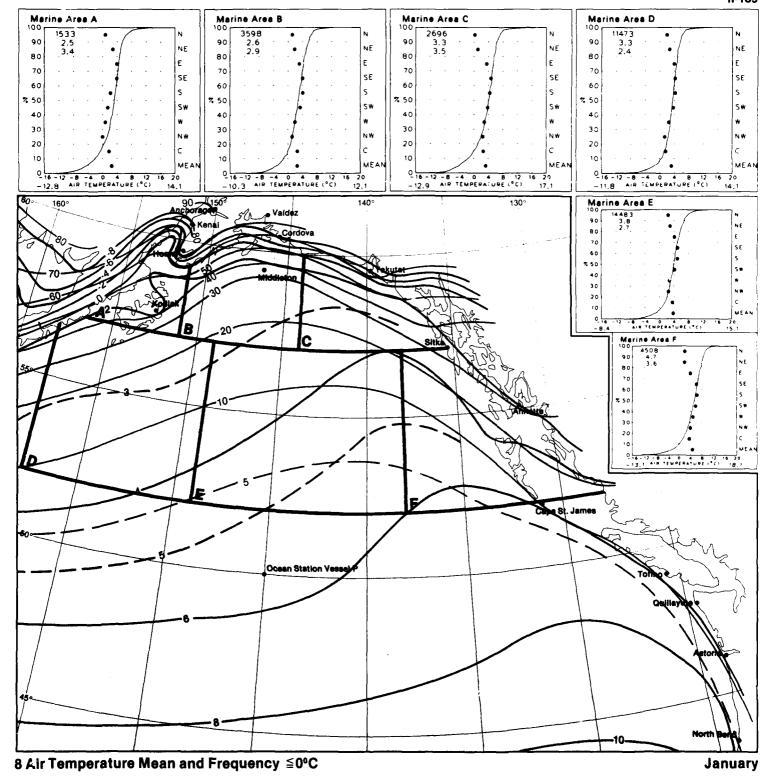
The temperature scale of the graphs varies in both range and class interval. The percent frequency of temperature observations greater than a given value can be obtained by subtracting the cumulative percent frequency of that value from 100%. The number of observations and the standard deviation, plus the plotted points on the graphs, are based on those observations reporting both temperature and wind direction. The cumulative curve is based on all observations reporting temperature with or without wind direction.

8 Legend

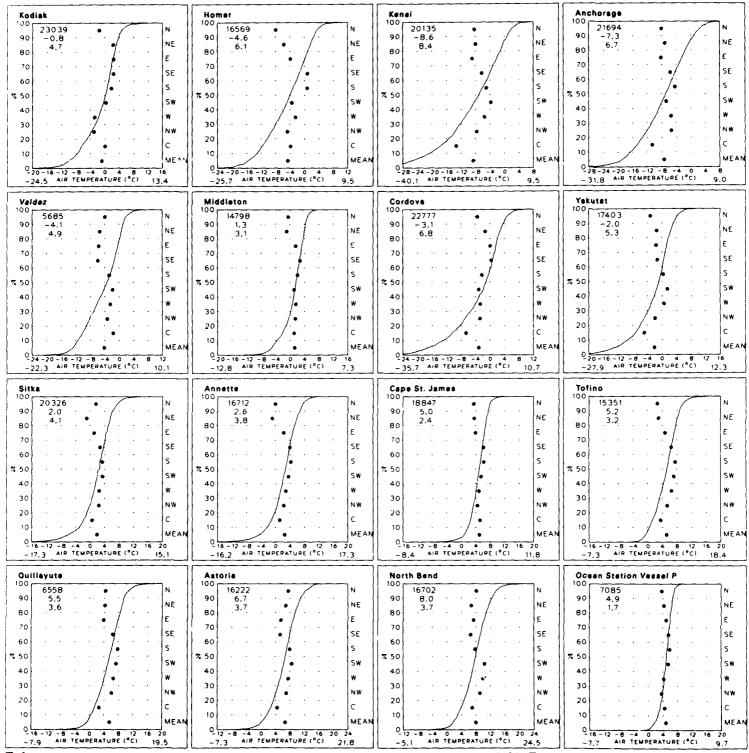
Legend 8



January 8 Air Temperature and Wind Direction

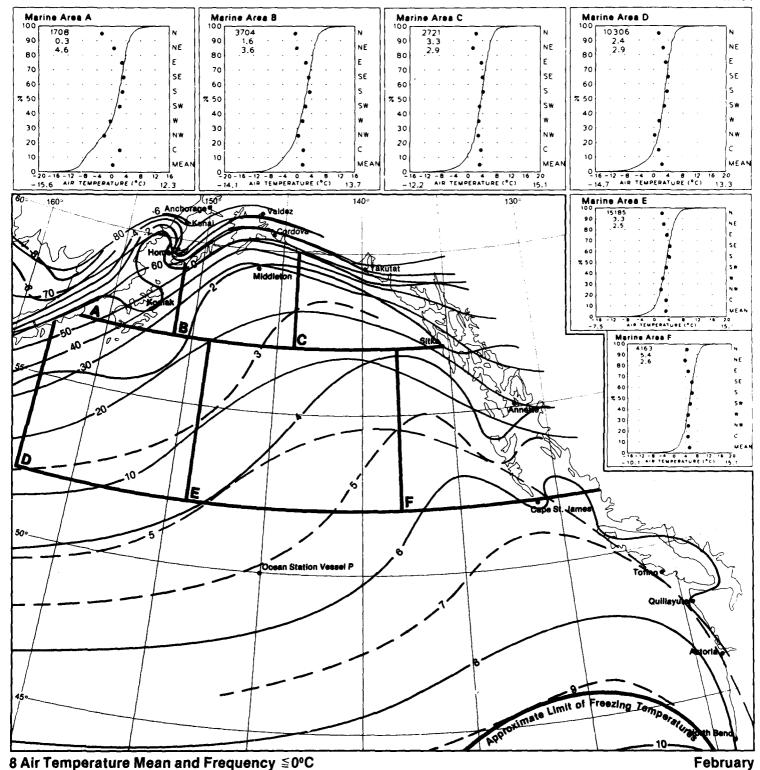






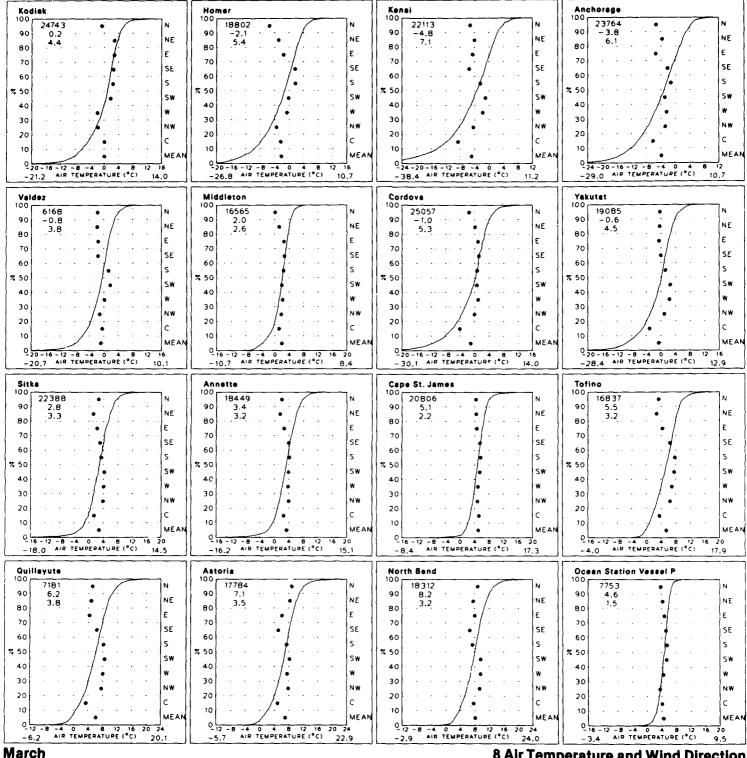
**February** 

8 Air Temperature and Wind Direction

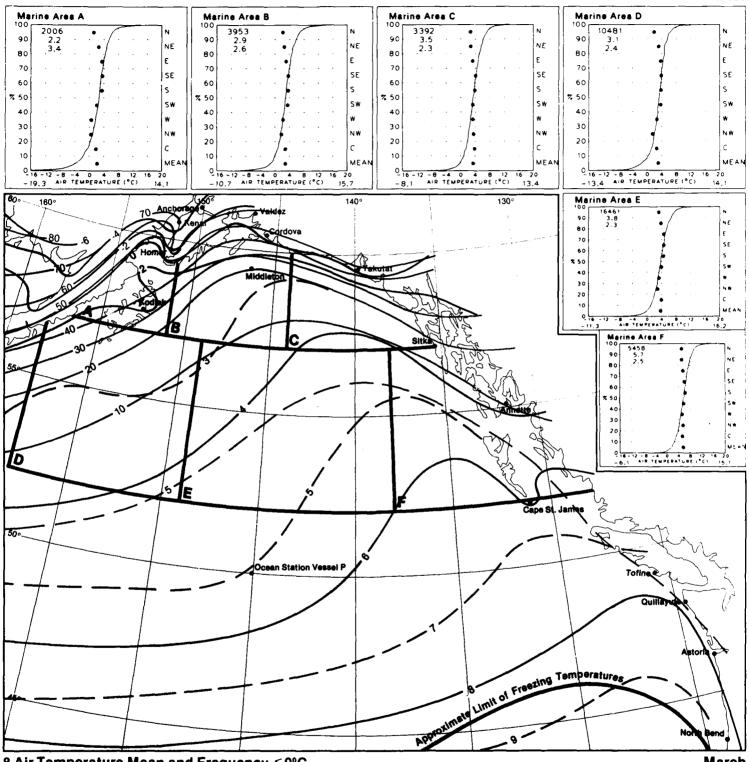


8 Air Temperature Mean and Frequency ≤0°C

ì

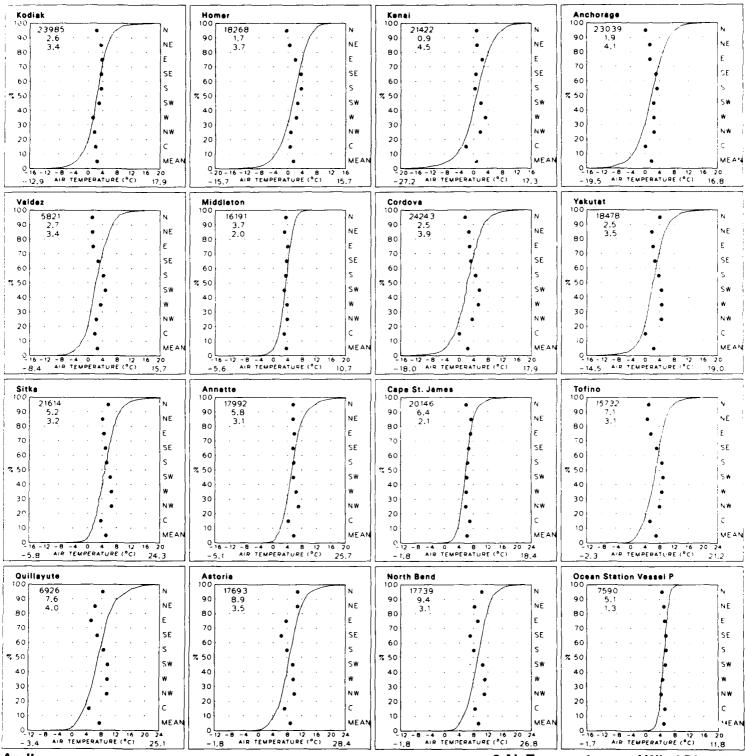


8 Air Temperature and Wind Direction



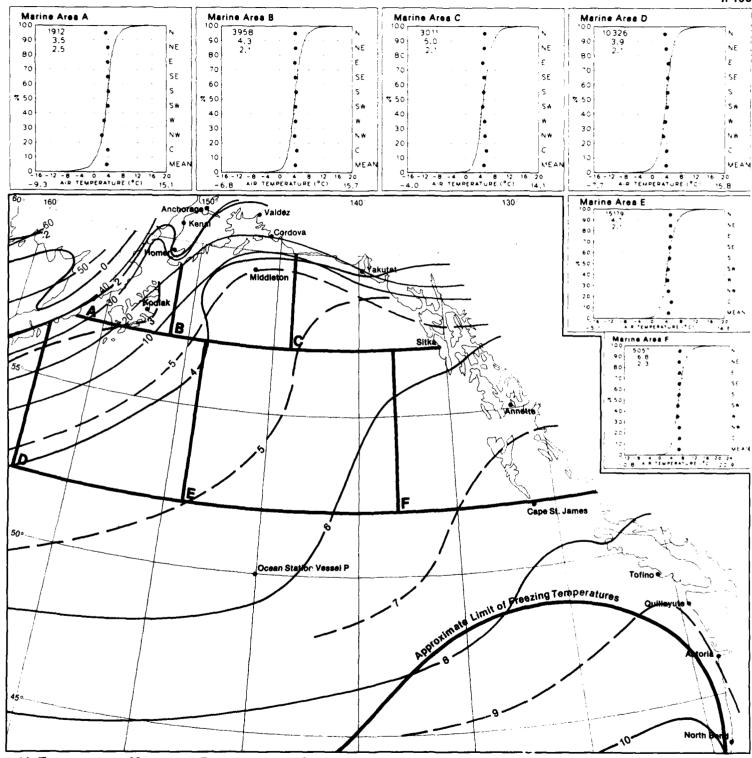
8 Air Temperature Mean and Frequency ≤ 0°C

March



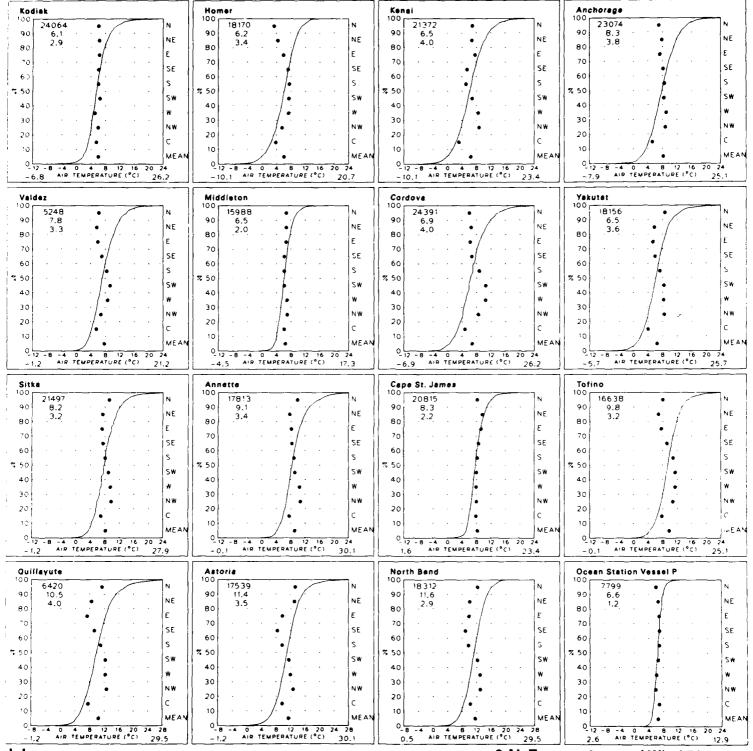
April

8 Air Temperature and Wind Direction

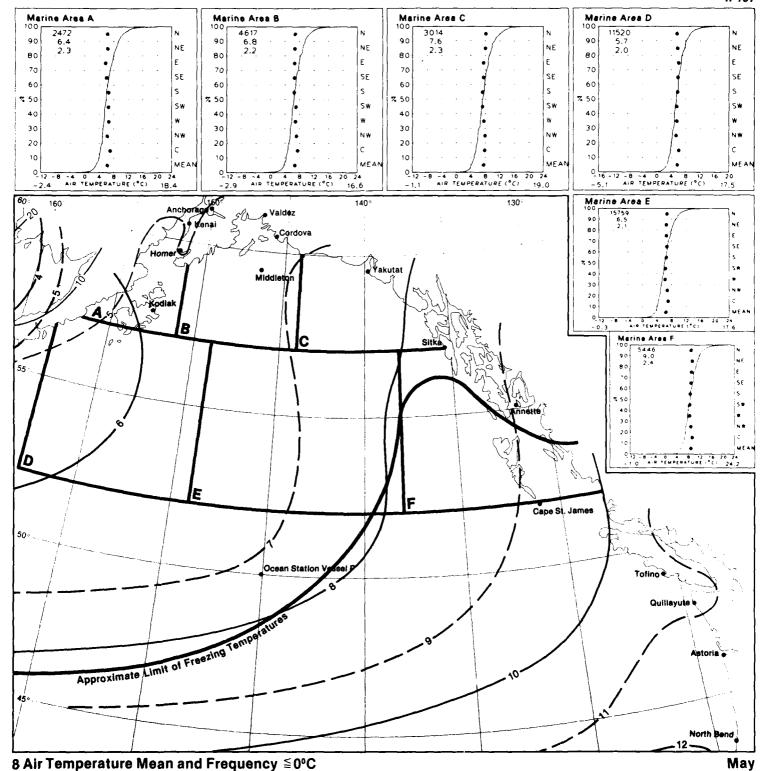


8 Air Temperature Mean and Frequency ≤ 0°C

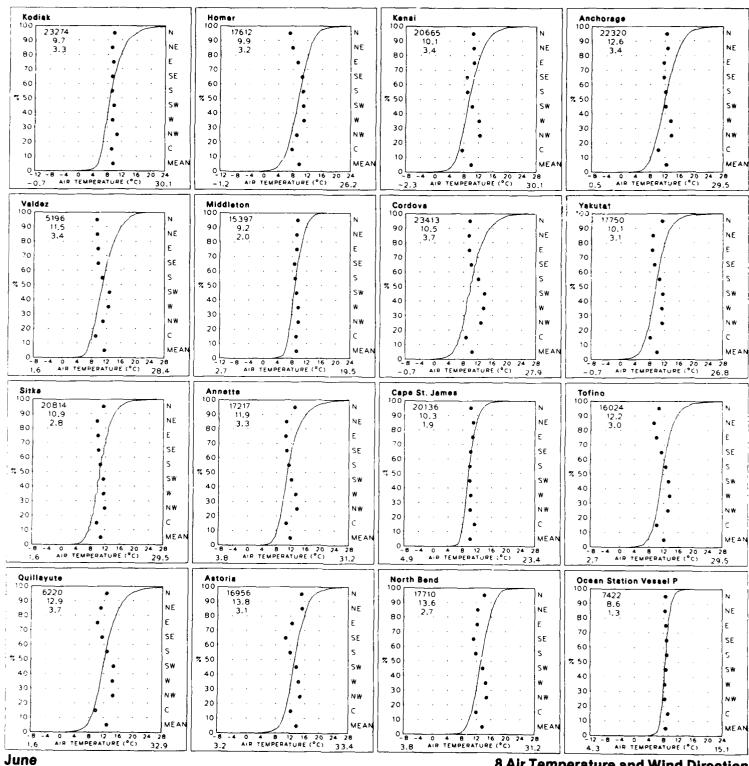
April



July 8 Air Temperature and Wind Direction

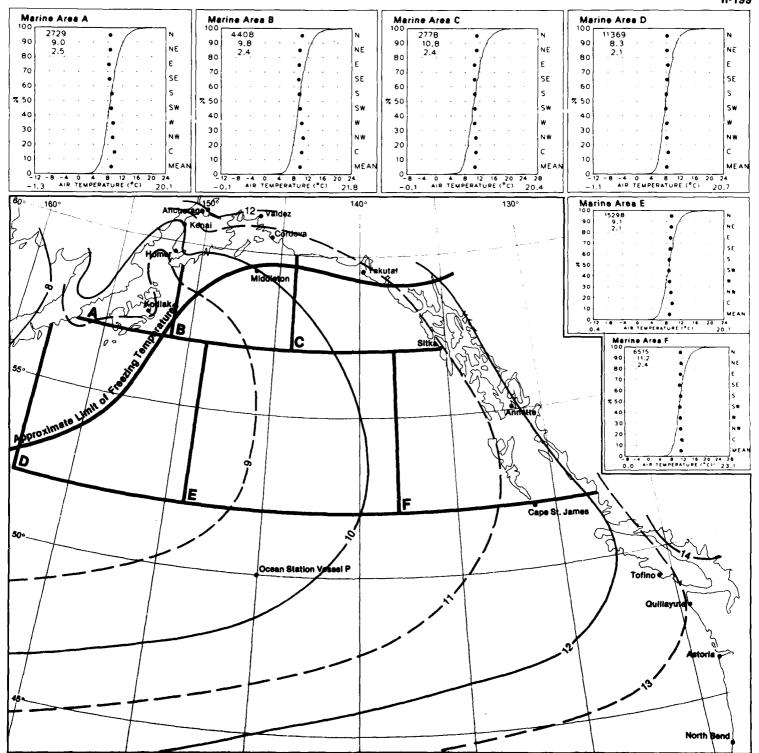


8 Air Temperature Mean and Frequency ≤ 0°C

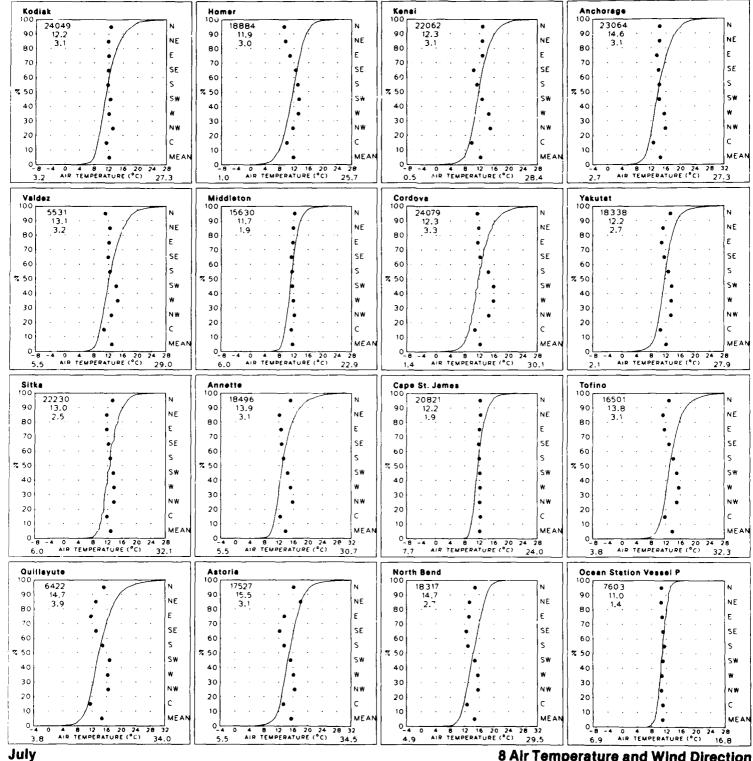


16 8 Air Temperature and Wind Direction

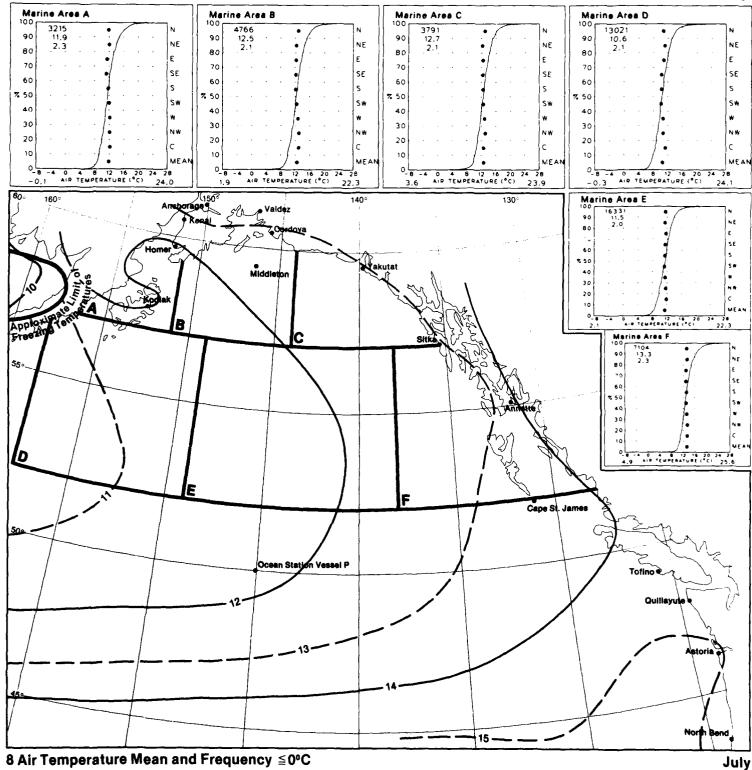
June



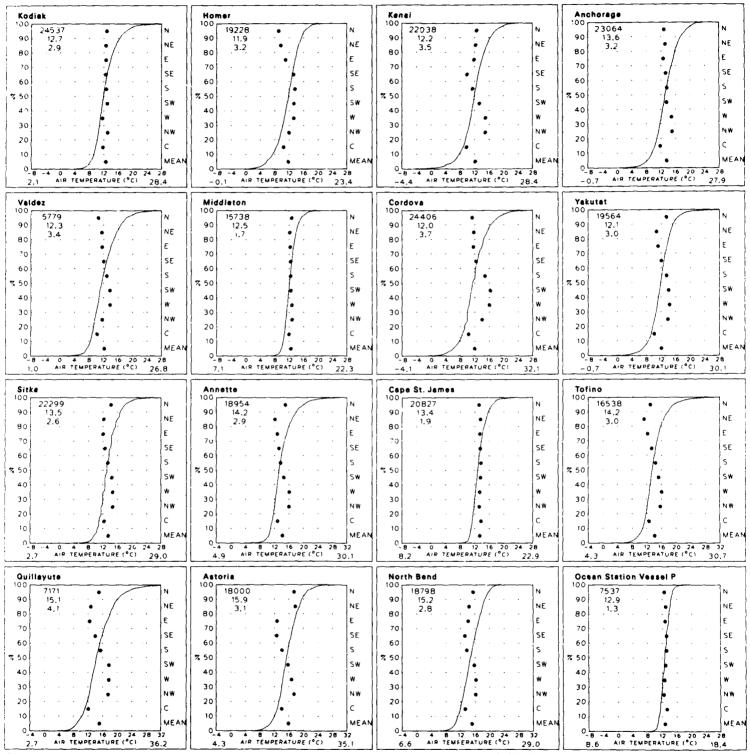
8 Air Temperature Mean and Frequency  $\le 0^{\circ}$ C



8 Air Temperature and Wind Direction

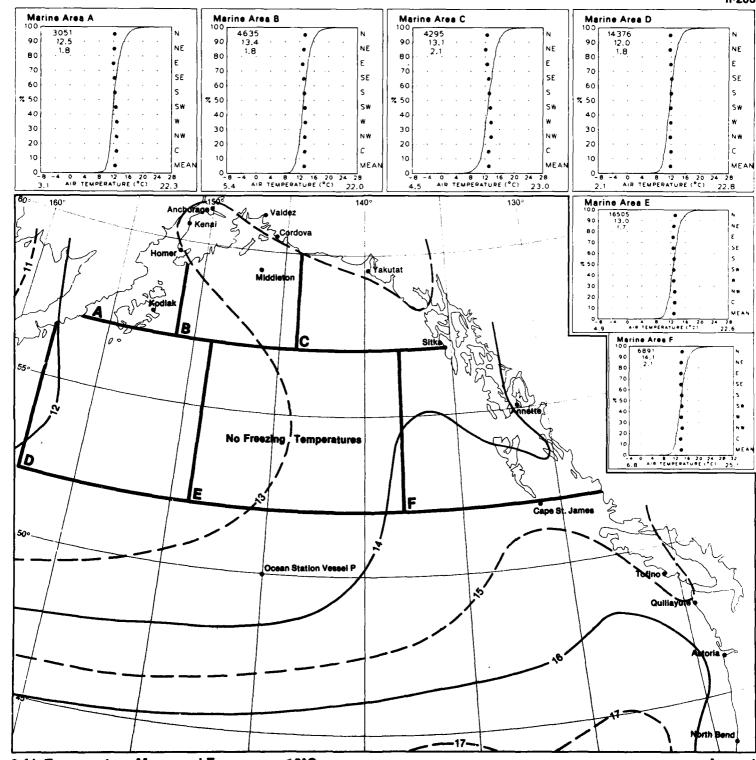


8 Air Temperature Mean and Frequency ≤0°C



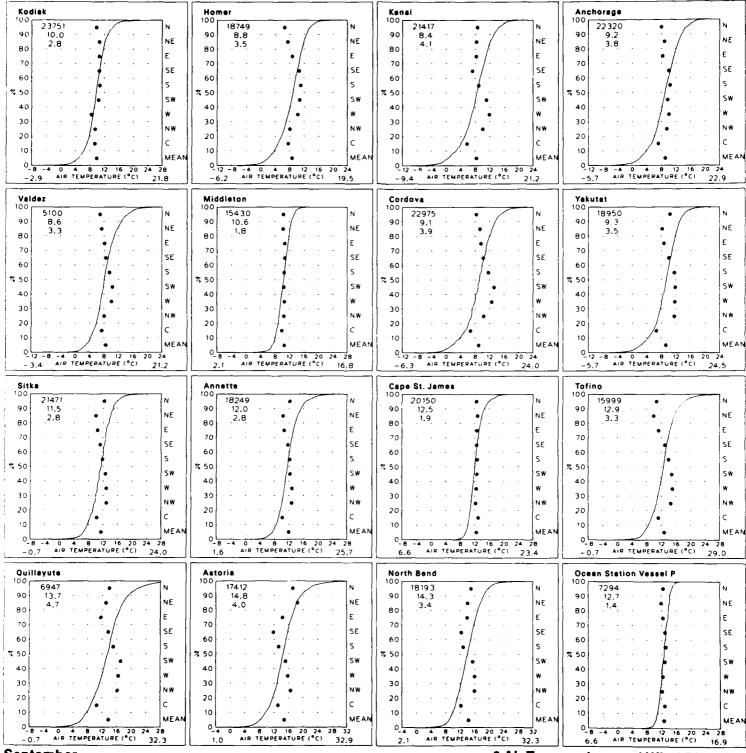
**August** 

8 Air Temperature and Wind Direction



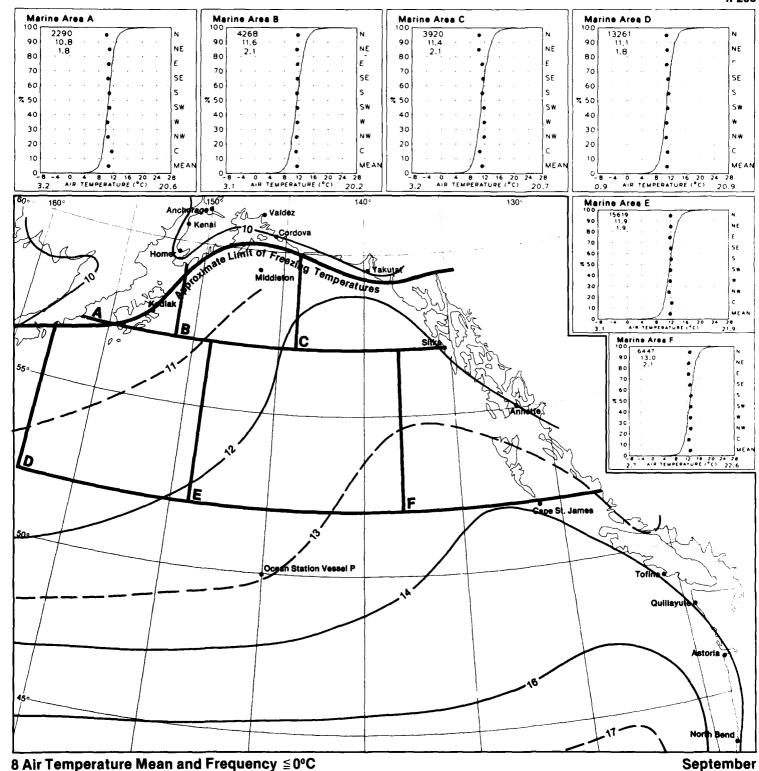
8 Air Temperature Mean and Frequency ≤0°C

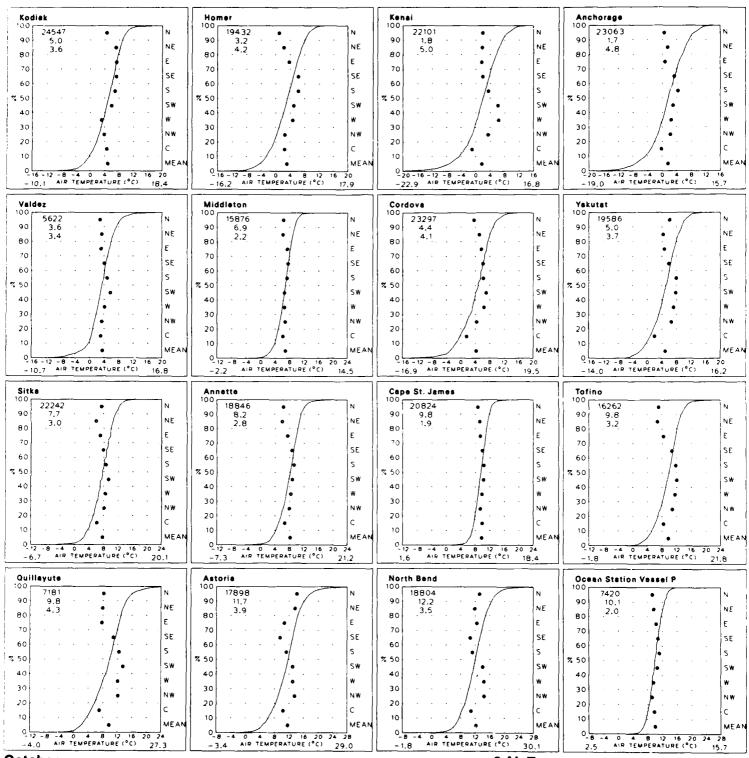
# 11-204



September

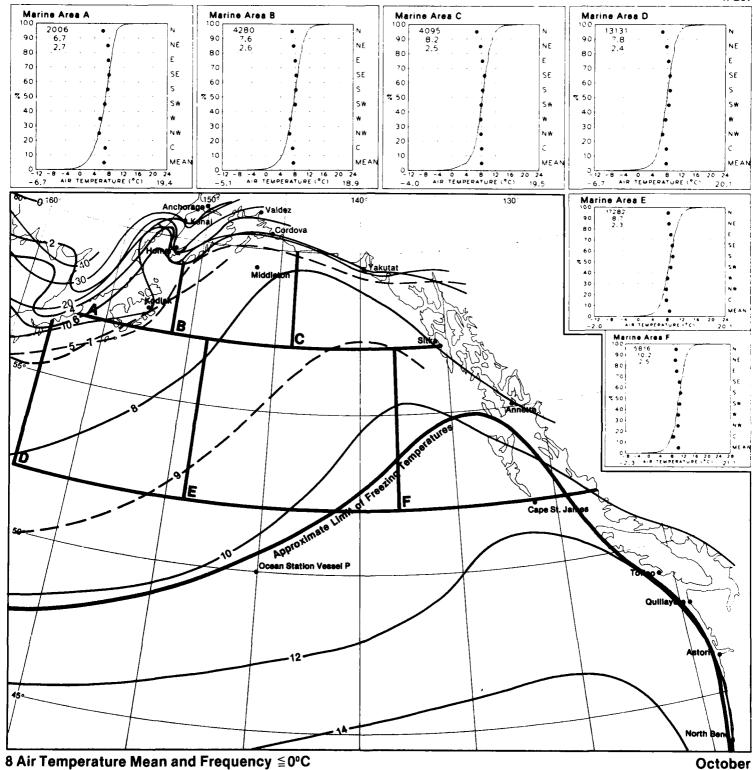
8 Air Temperature and Wind Direction



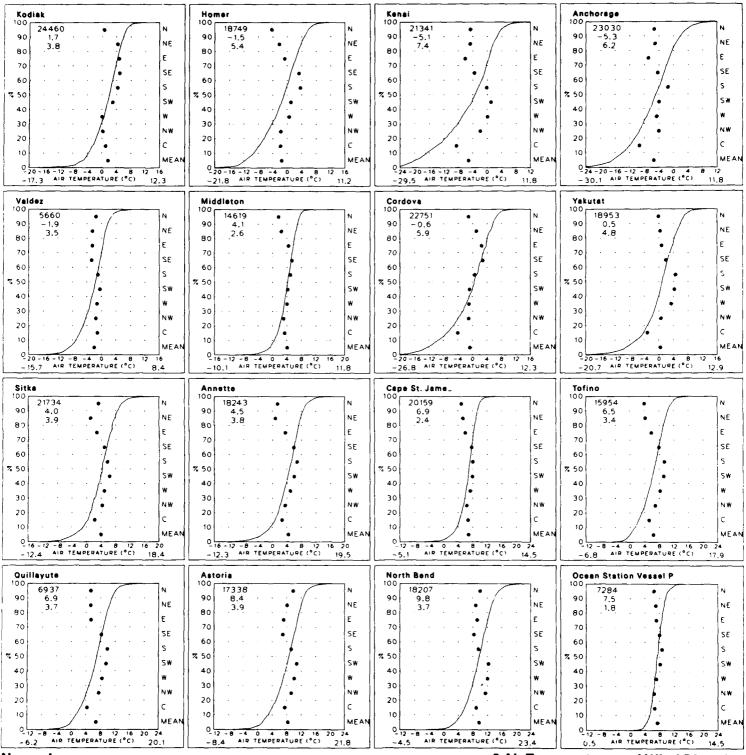


October

8 Air Temperature and Wind Direction

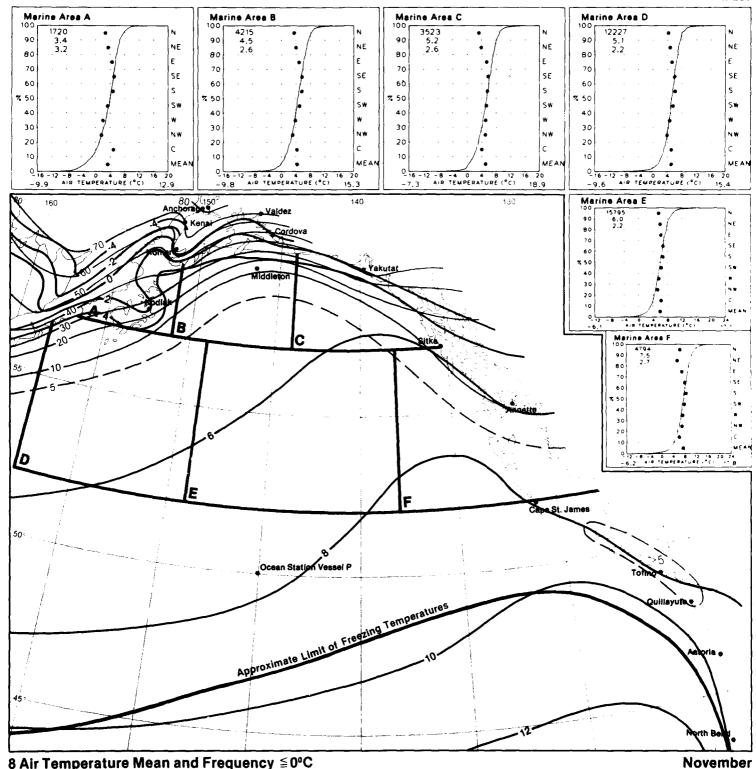


8 Air Temperature Mean and Frequency ≤ 0°C

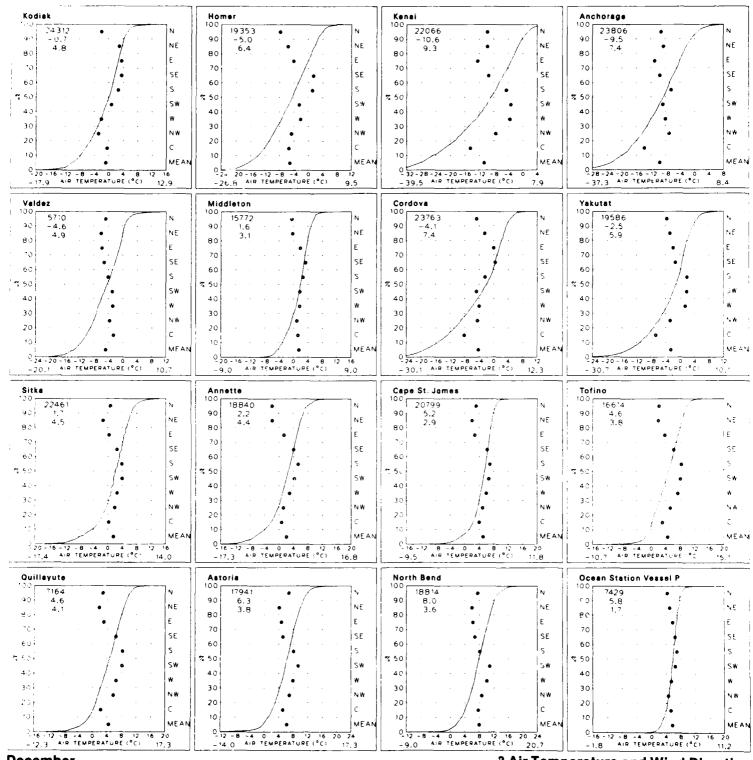


November

8 Air Temperature and Wind Direction

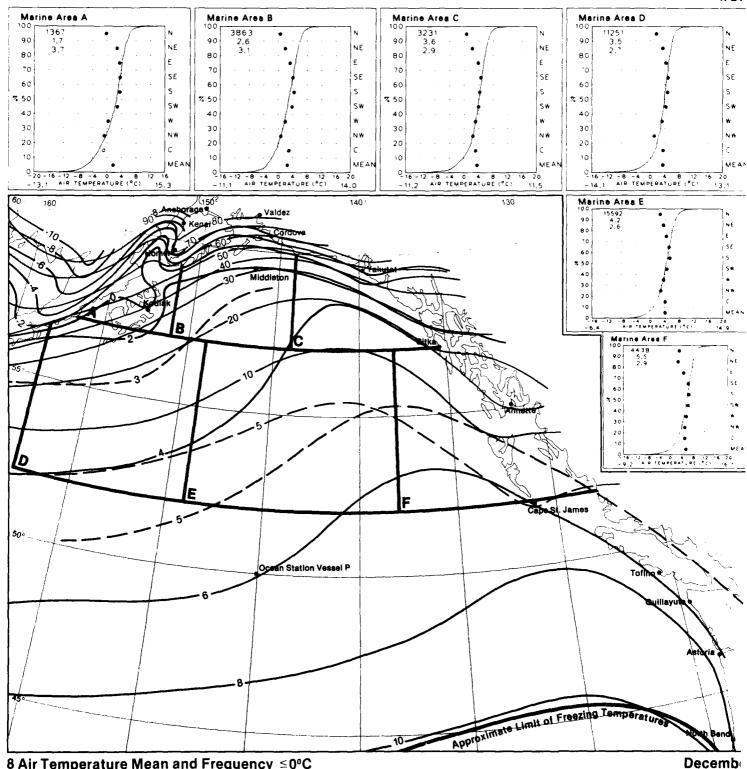


8 Air Temperature Mean and Frequency ≤ 0°C



December

8 Air Temperature and Wind Direction



8 Air Temperature Mean and Frequency ≤0°C

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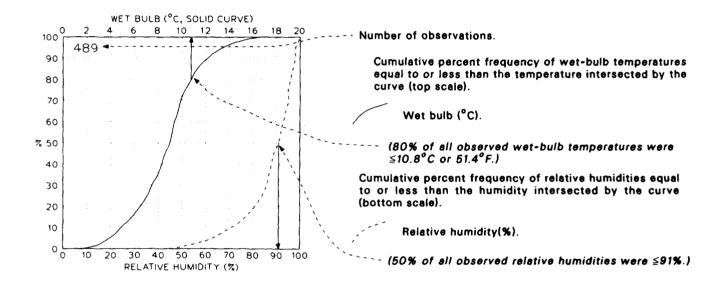
# Map 9. Dew point temperature extremes (°C)

BLACK LINE — Maximum (99%) dew point temperature (1% of temperatures were greater than the given value).

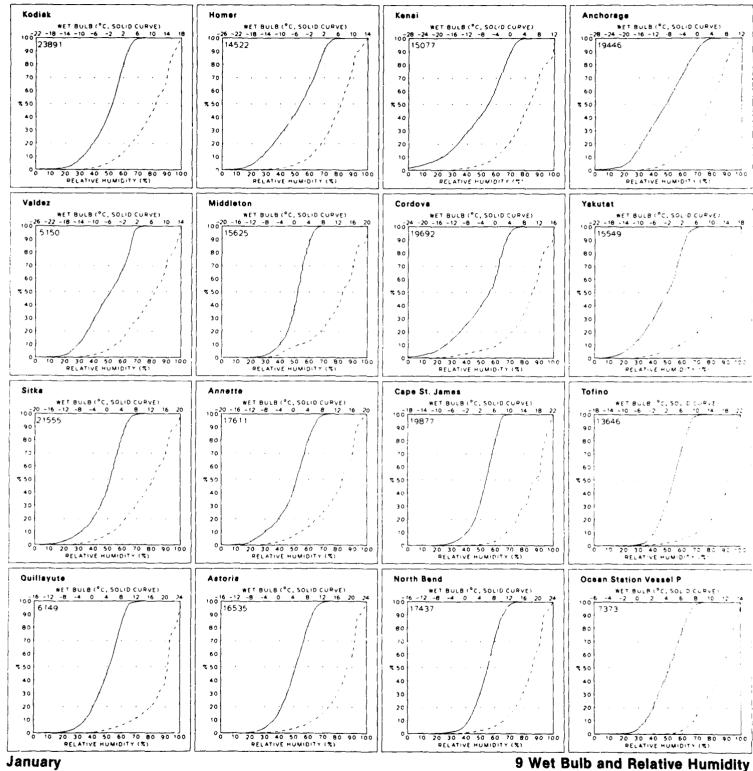
BLUE LINE - Minimum (1%) dew point temperature (1% of temperatures were equal to or less than the given value).

Albers Equal-Area Conic Projection

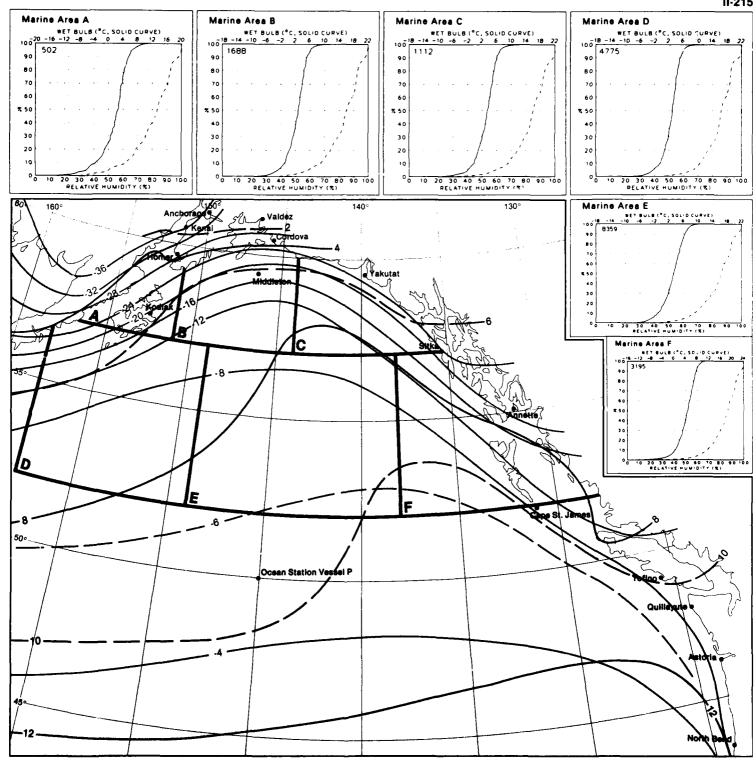
# Graphs: Wet bulb/relative humidity



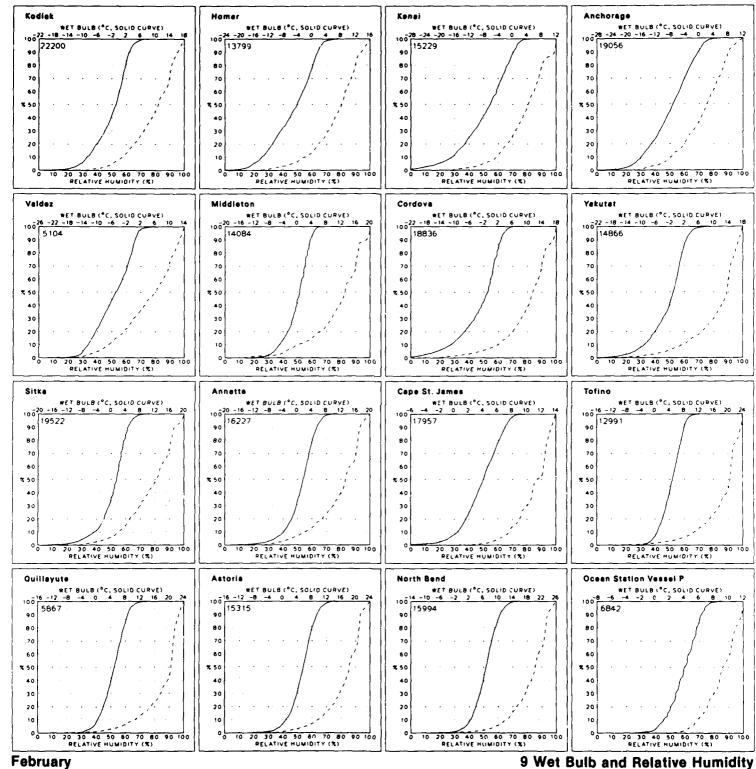
The observation count for the graph reflects those observations containing both dry and wet bulb temperatures; both are required in computing the relative humidity. The percentage of observations of either element greater than a given value can be obtained from the graph by subtracting the cumulative percent frequency of that value from 100%.

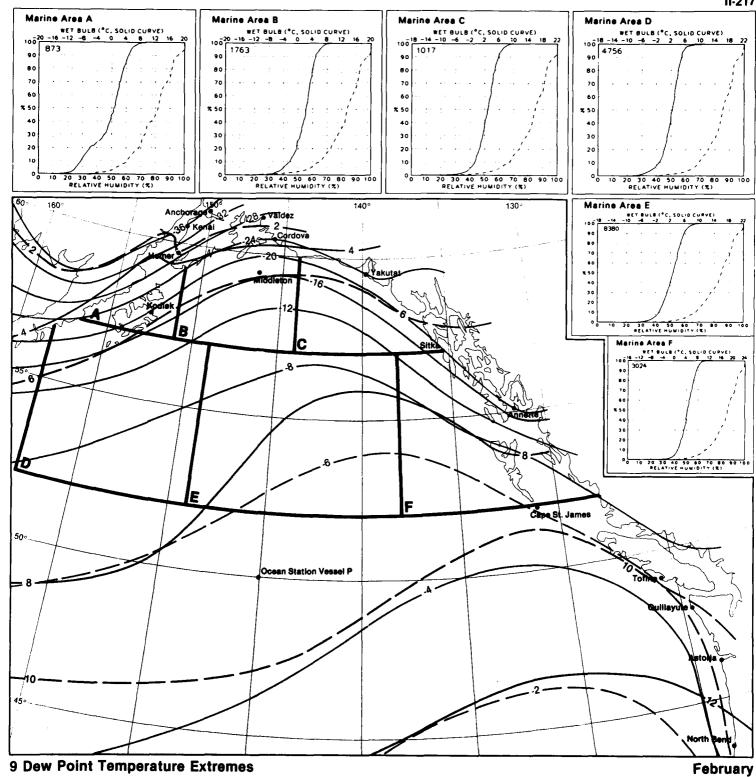


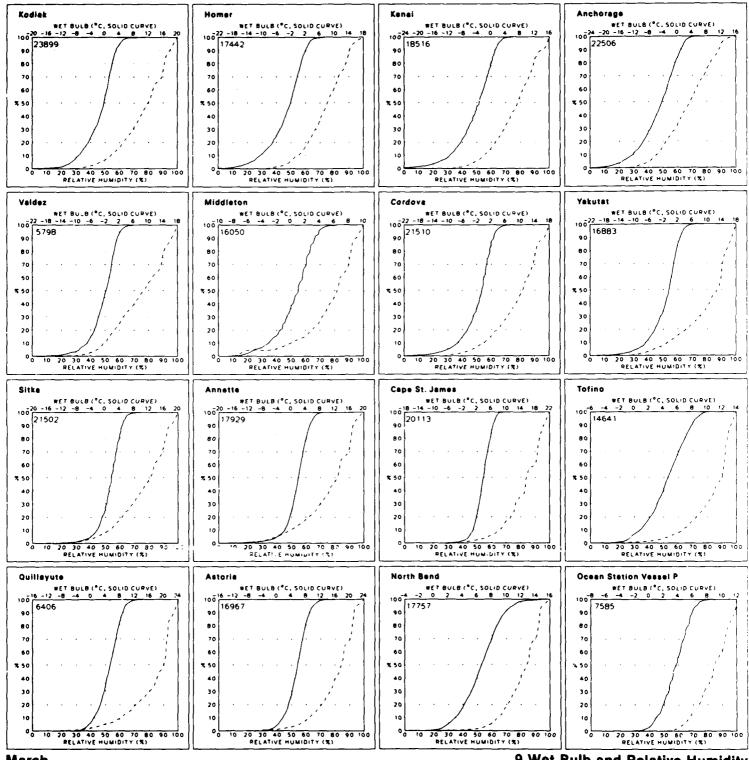
**January** 



9 Dew Point Temperature Extremes

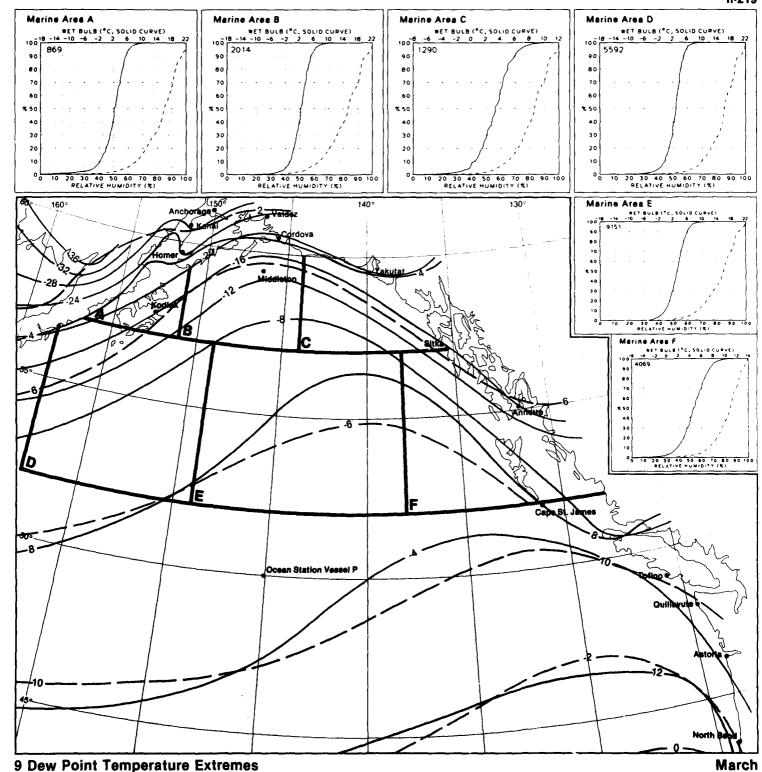


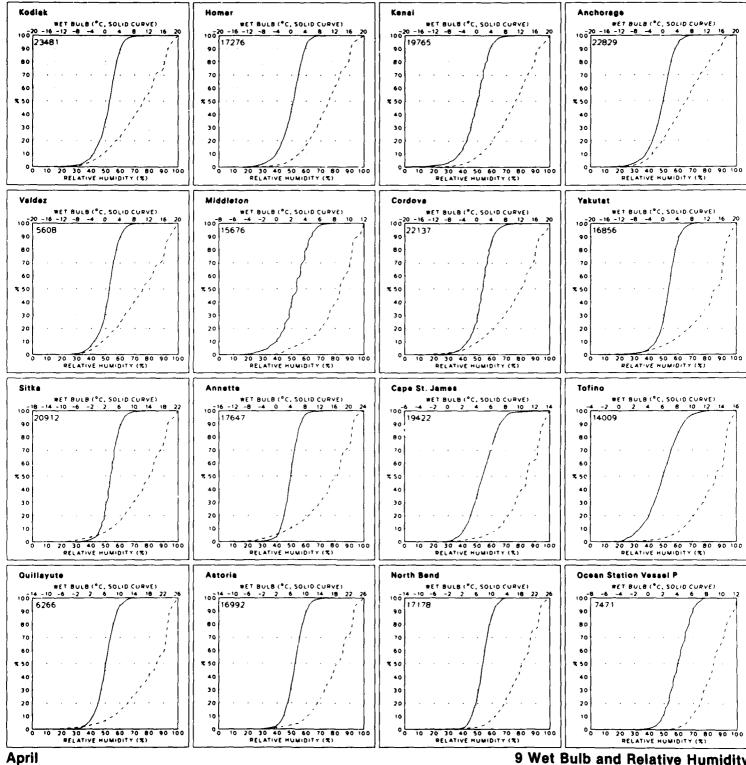




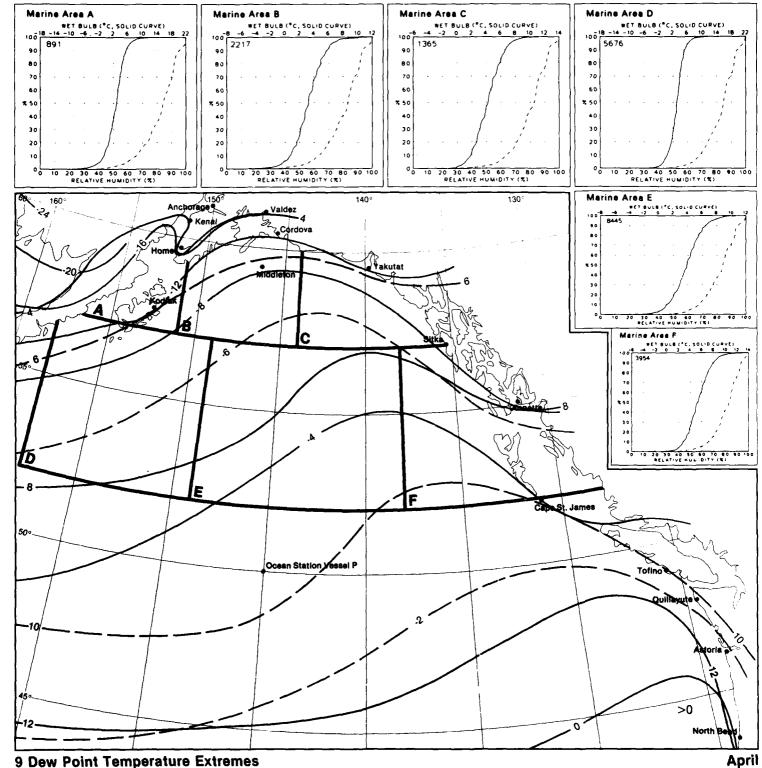
March

9 Wet Bulb and Relative Humidity

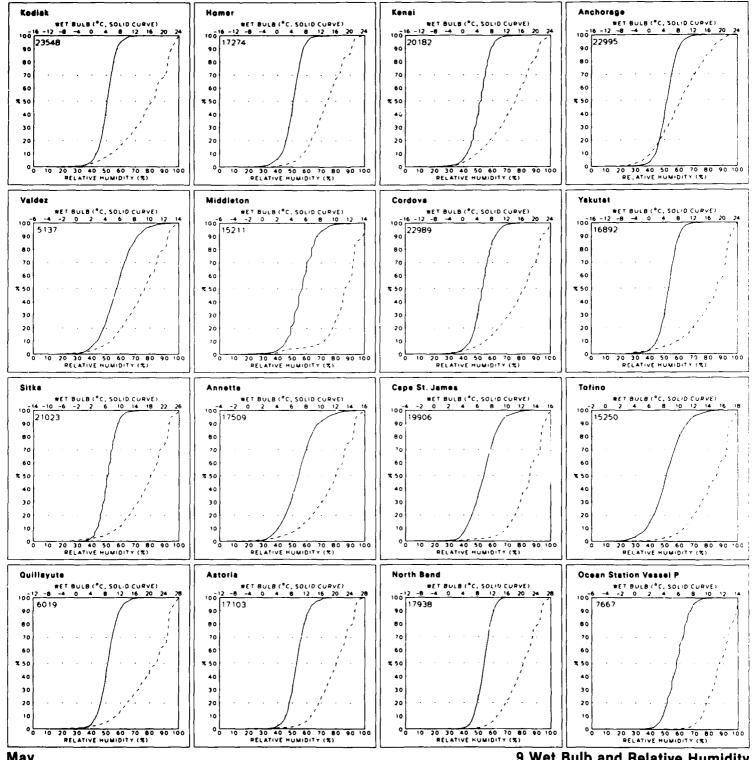




9 Wet Bulb and Relative Humidity

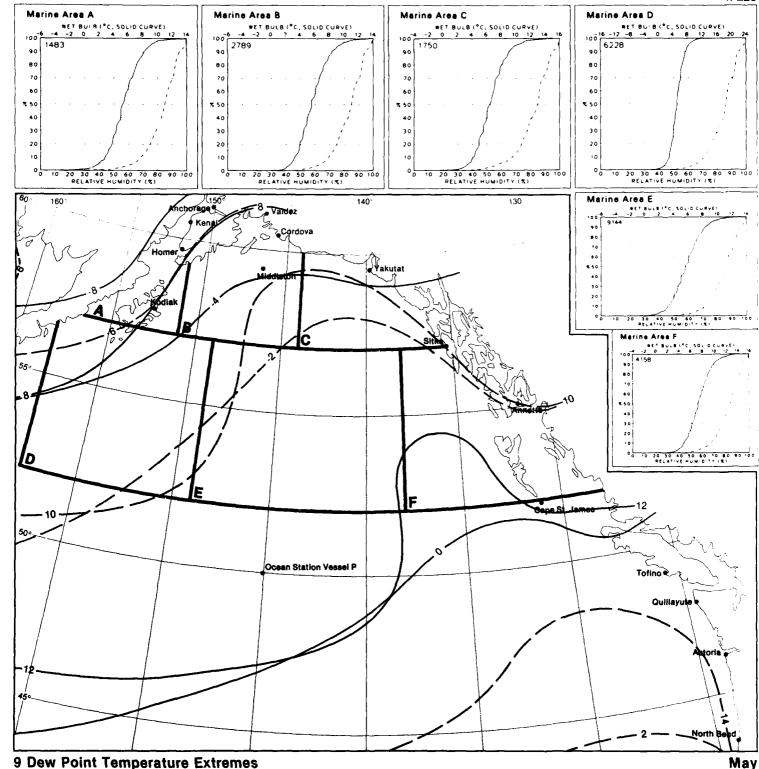


9 Dew Point Temperature Extremes

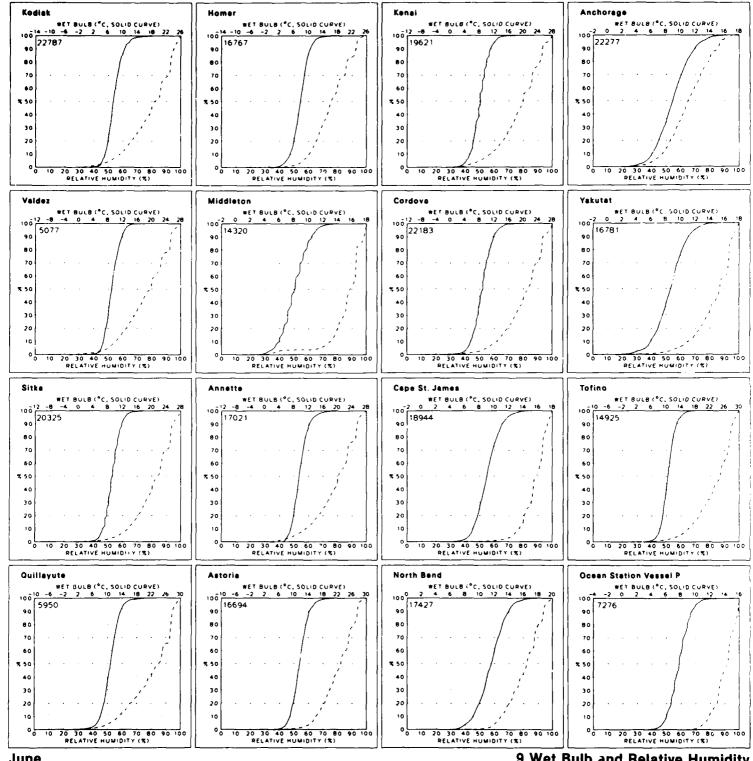


May

9 Wet Bulb and Relative Humidity

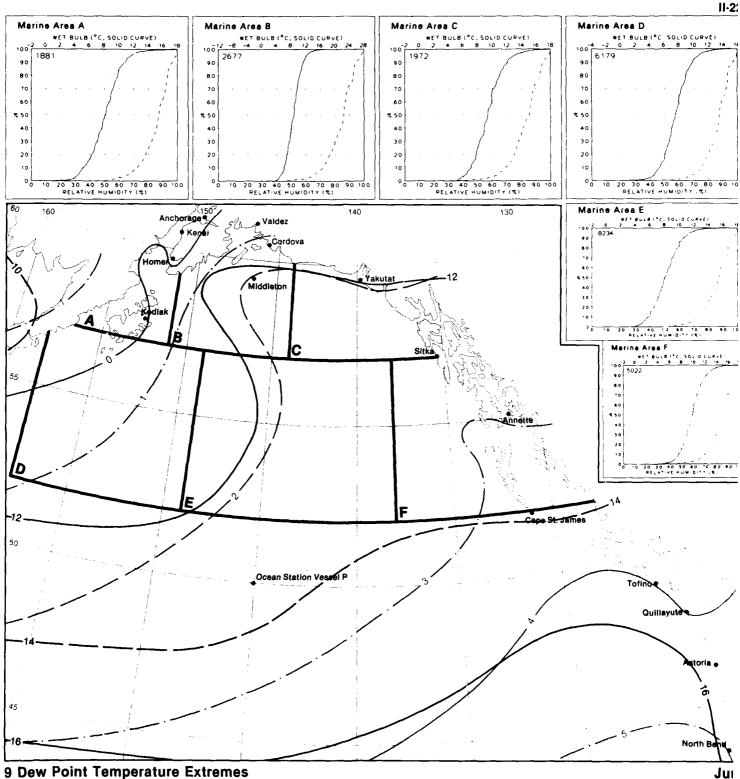


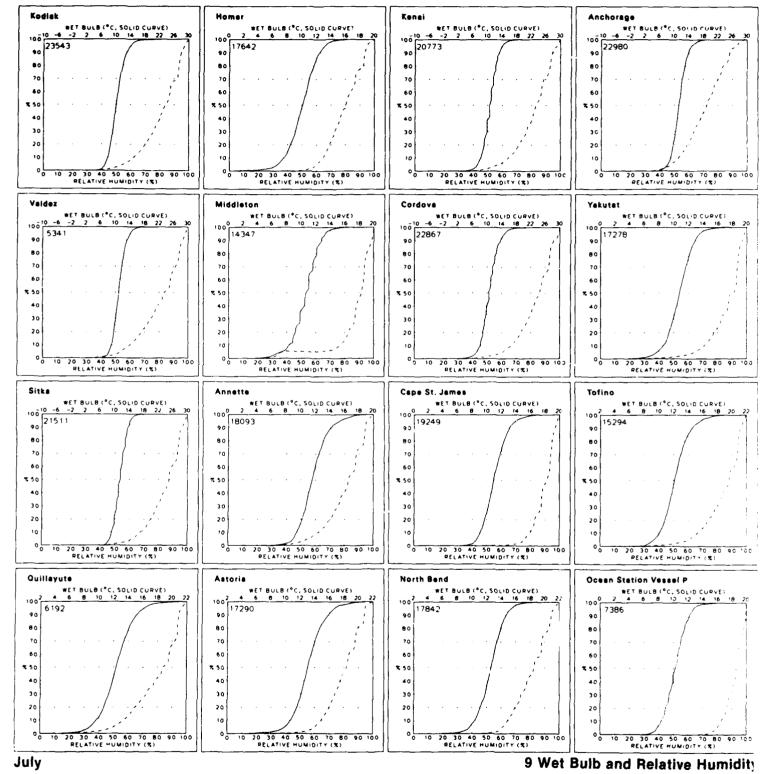
9 Dew Point Temperature Extremes

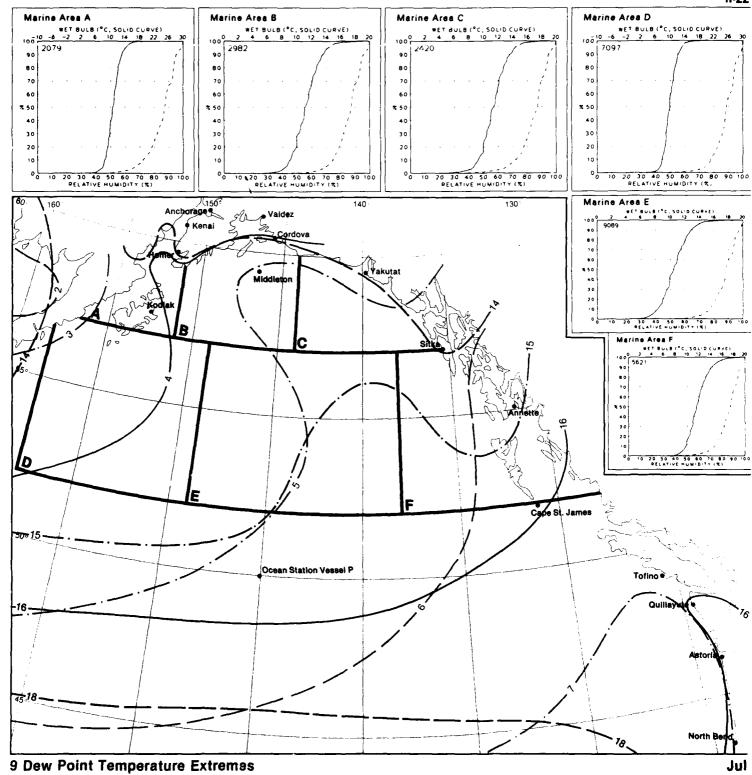


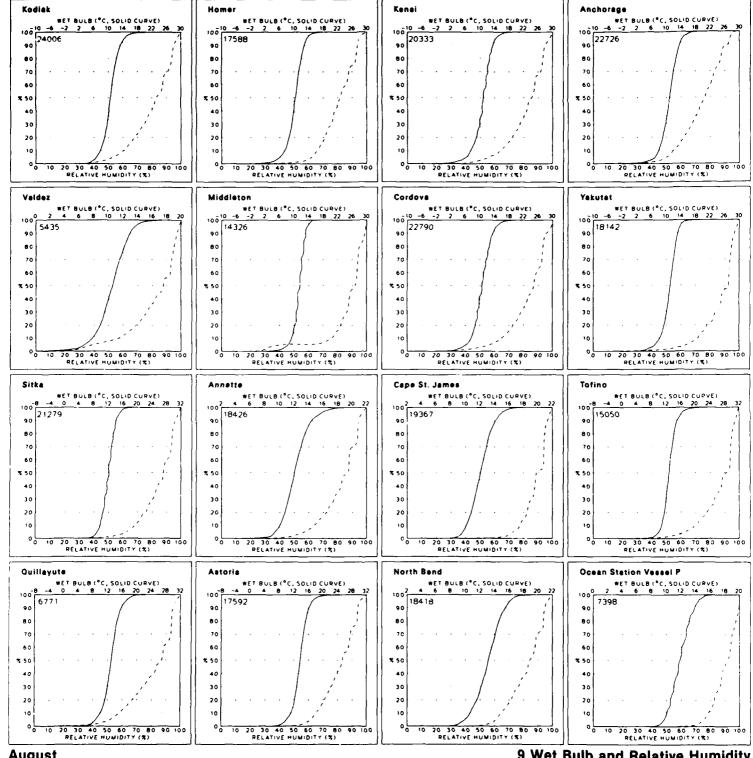
June

9 Wet Bulb and Relative Humidity





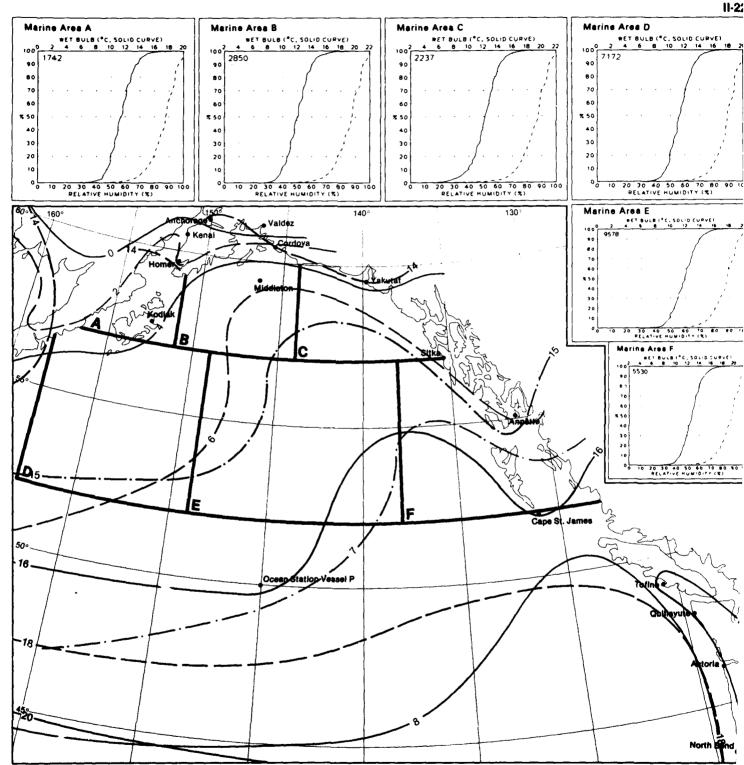




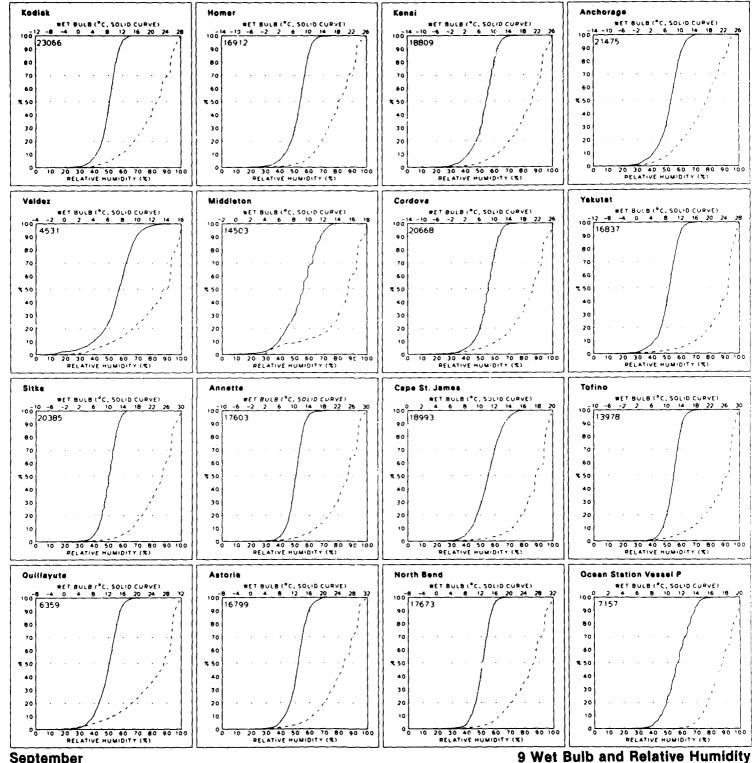
August

9 Wet Bulb and Relative Humidity

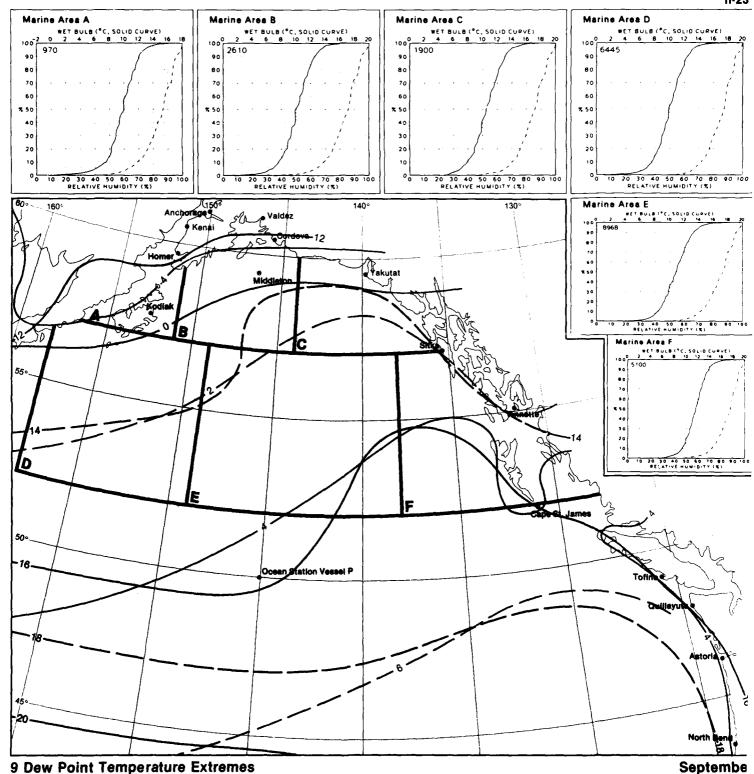
Aug

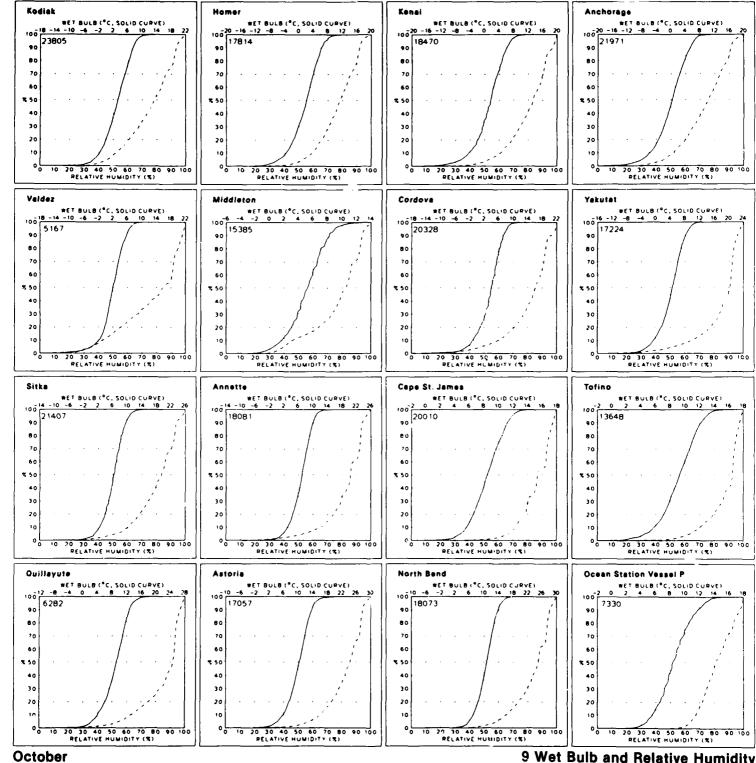


9 Dew Point Temperature Extremes

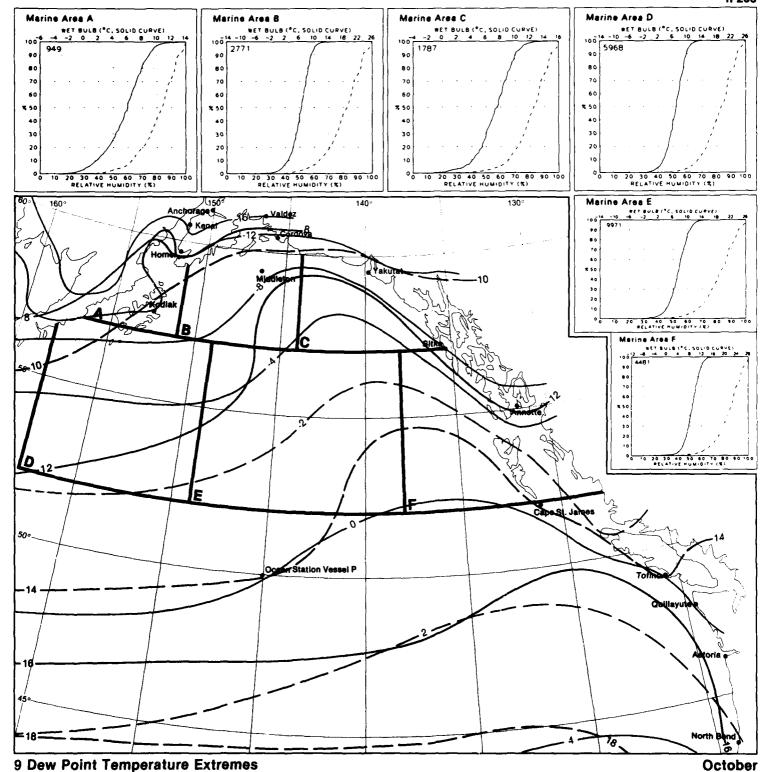


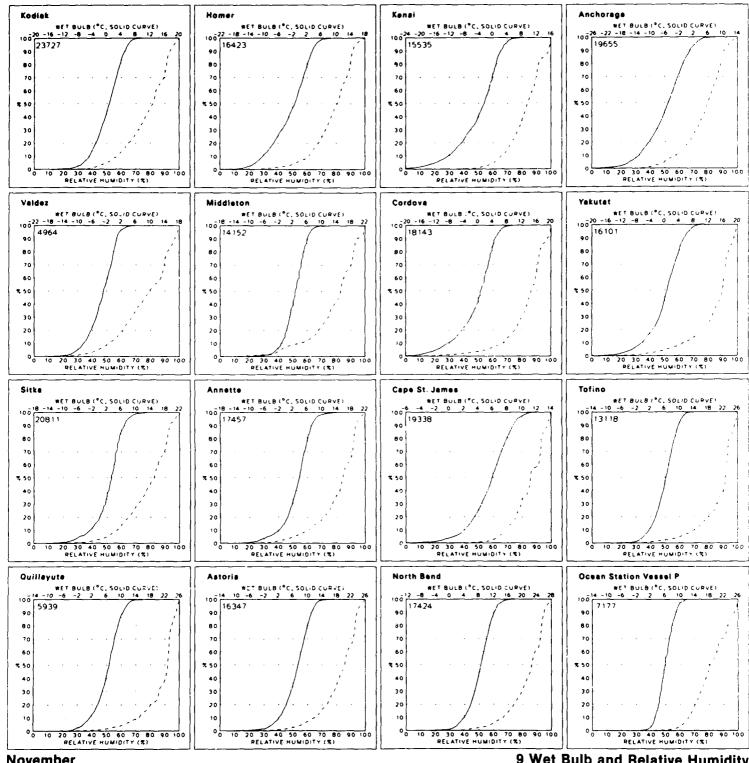
September





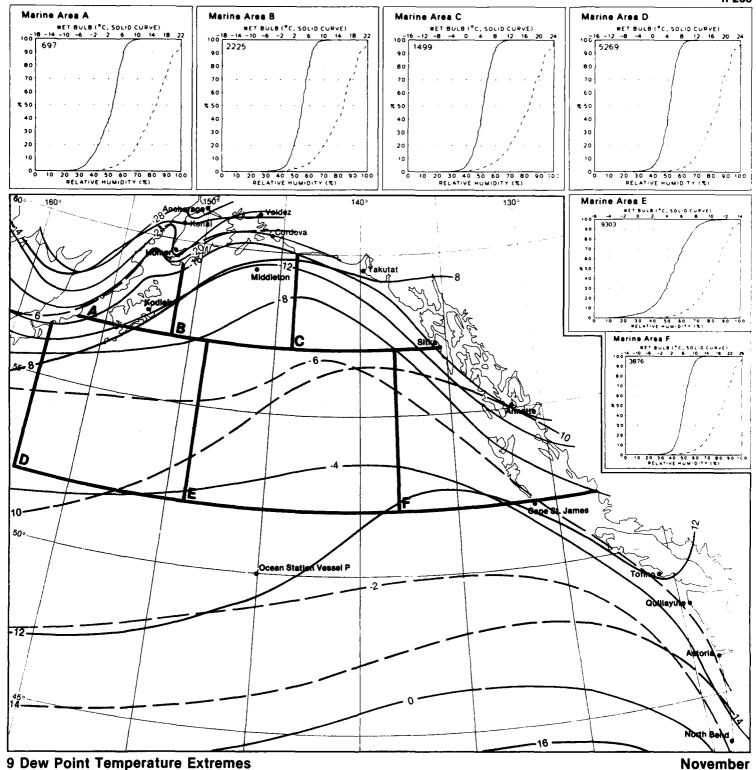
9 Wet Bulb and Relative Humidity

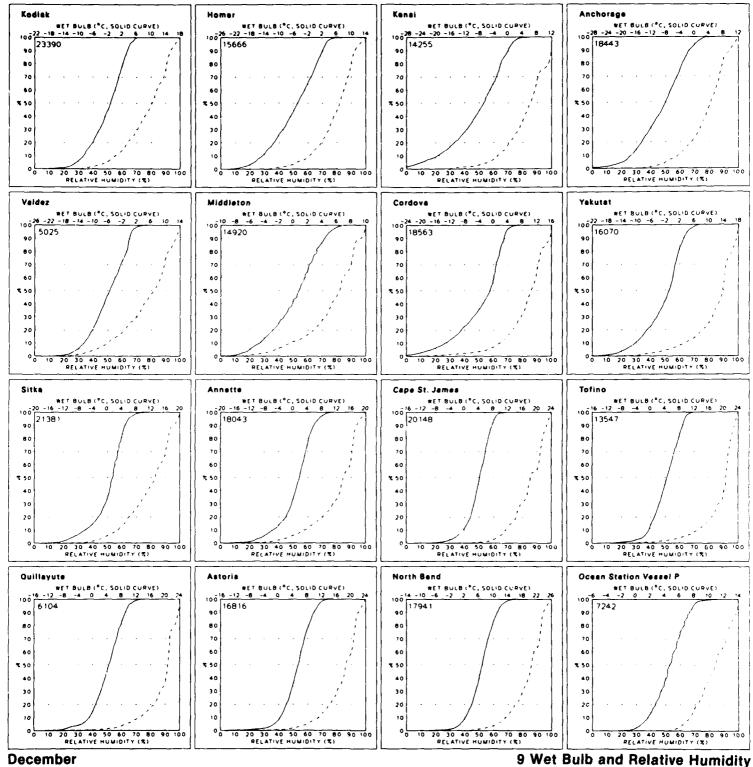




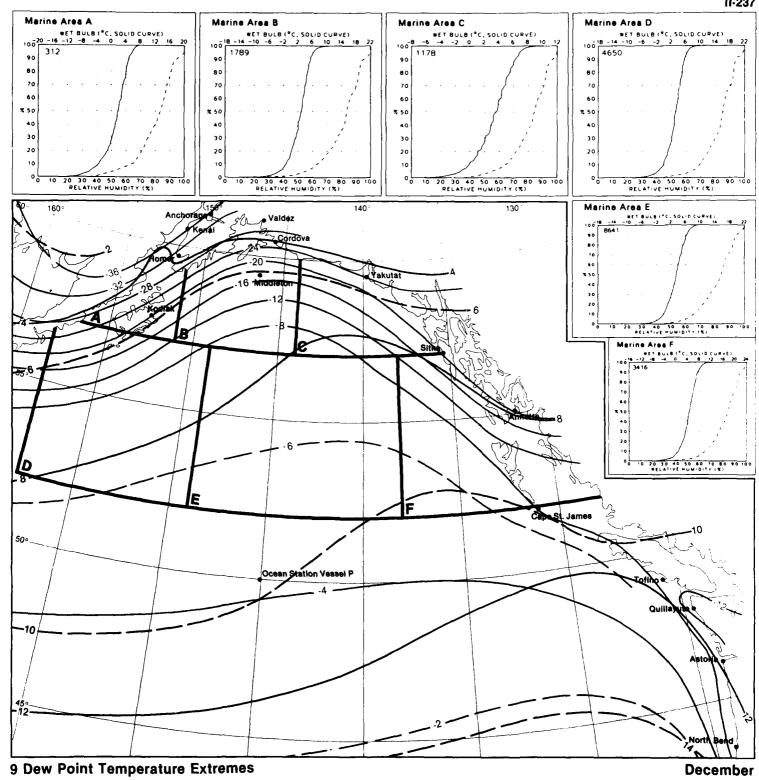
November

9 Wet Bulb and Relative Humidity





December



## Map 10. Mean sea level pressure and vector mean wind

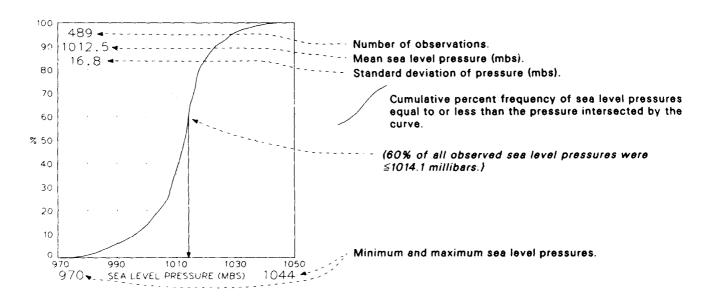
BLACK LINE - Mean sea level pressure (millibars).



Direction of flow toward station dot; vector magnitude in knots (example: vector mean wind is from northeast at 10.2 knots or 11.7 mph).

Albers Equal-Area Conic Projection

## **Graphs:** Sea level pressure

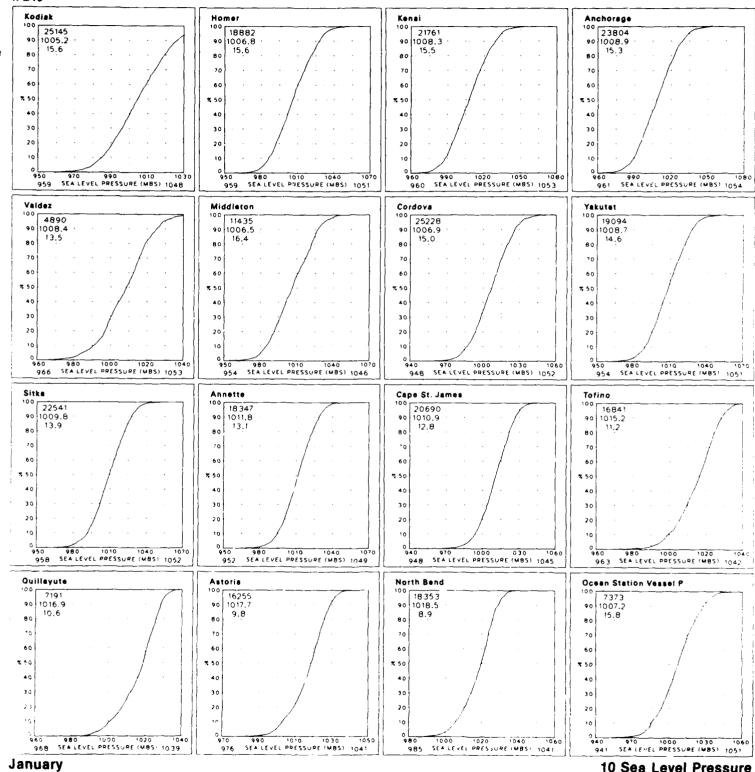


Sea level pressure is one of the most frequently recorded elements, but one of the least accurate because of instruction and coding errors. Despite the inaccuracies of the individual readings, the large-scale patterns and mean grade of the isopleth analyses are relatively accurate. The percentage of sea level pressure observations greater than a given value be obtained from the graph by subtracting the cumulative percent frequency of that value from 100%.

In areas of high persistence (also called constancy, steadiness) of direction, the magnitude of the vector mean wind (Sc should closely approach that of the scalar mean wind (Set 13).

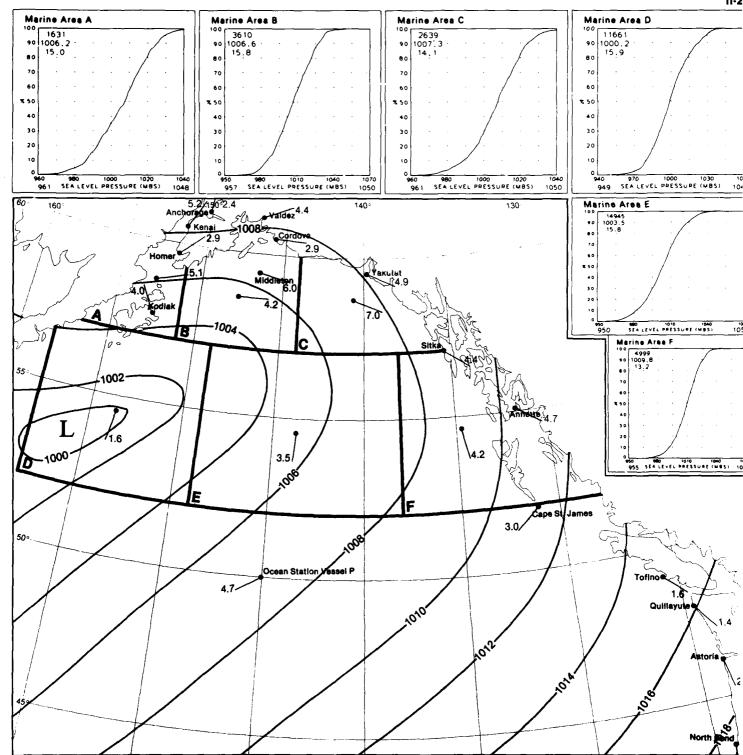
10 Legend

Leger

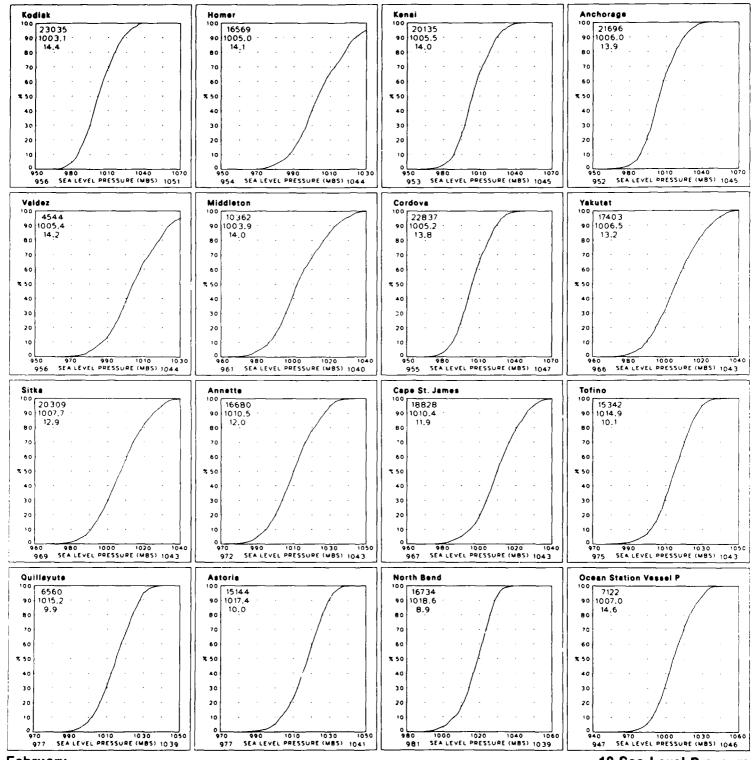


10 Sea Level Pressure

Janua

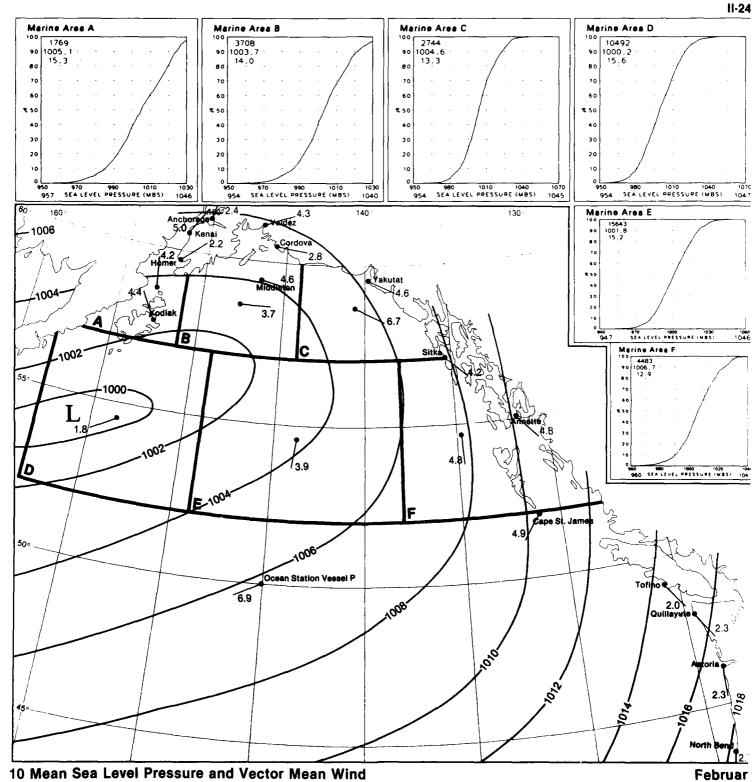


10 Mean Sea Level Pressure and Vector Mean Wind

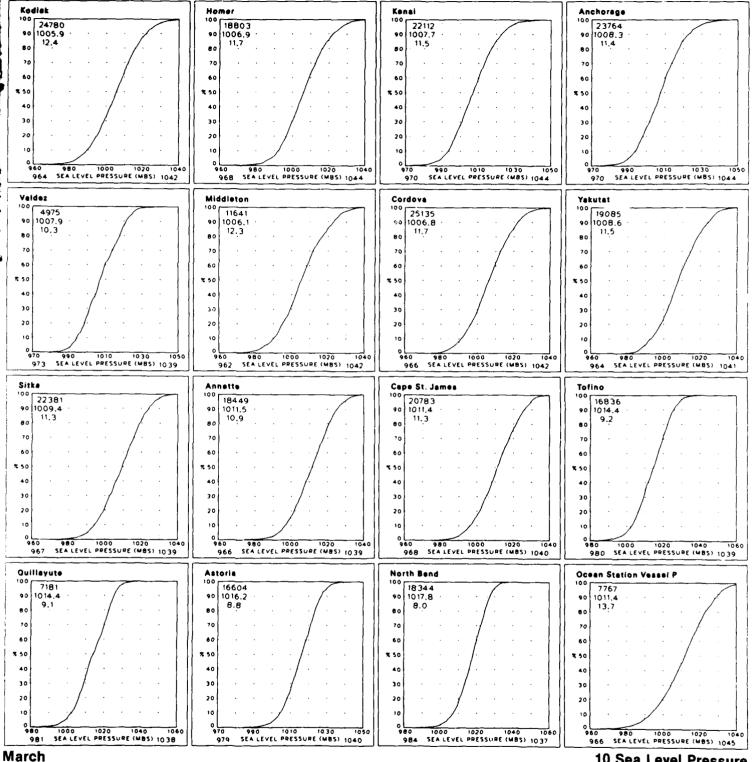


**February** 

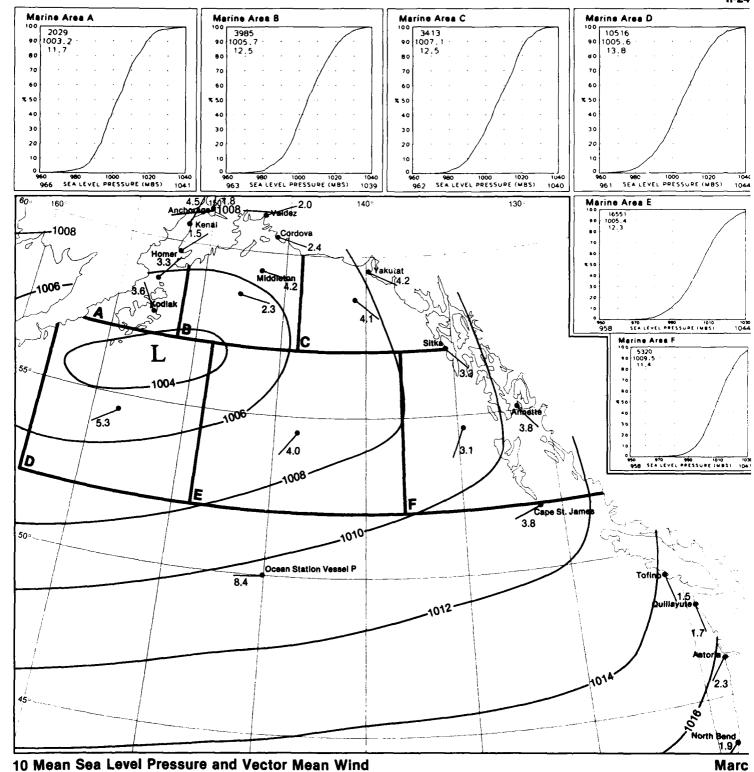
10 Sea Level Pressure



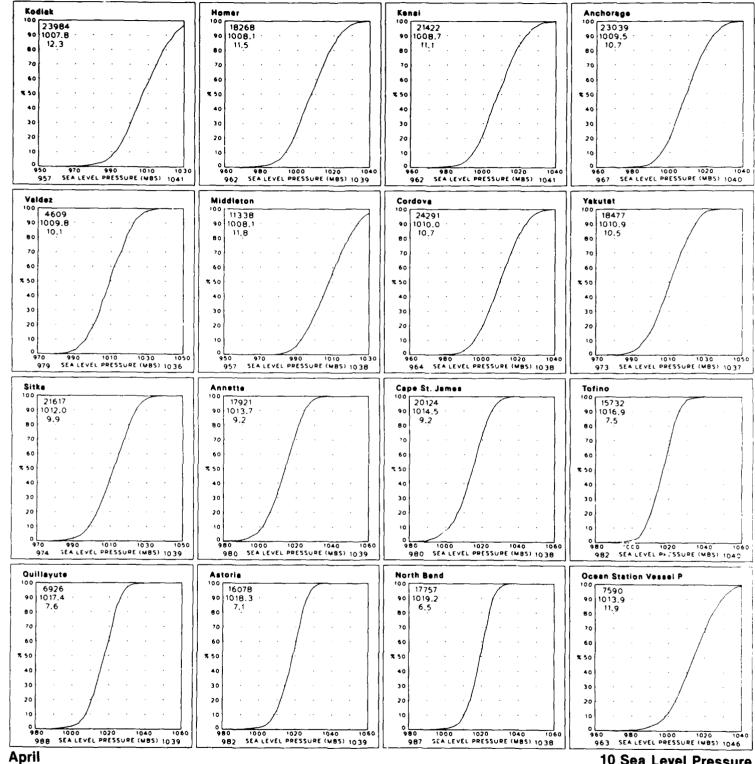
10 Mean Sea Level Pressure and Vector Mean Wind



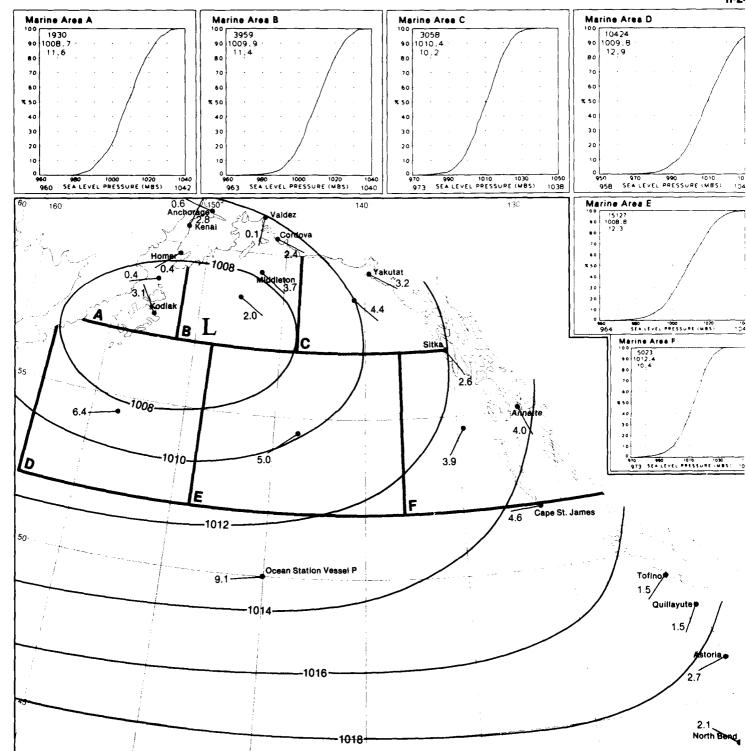
10 Sea Level Pressure



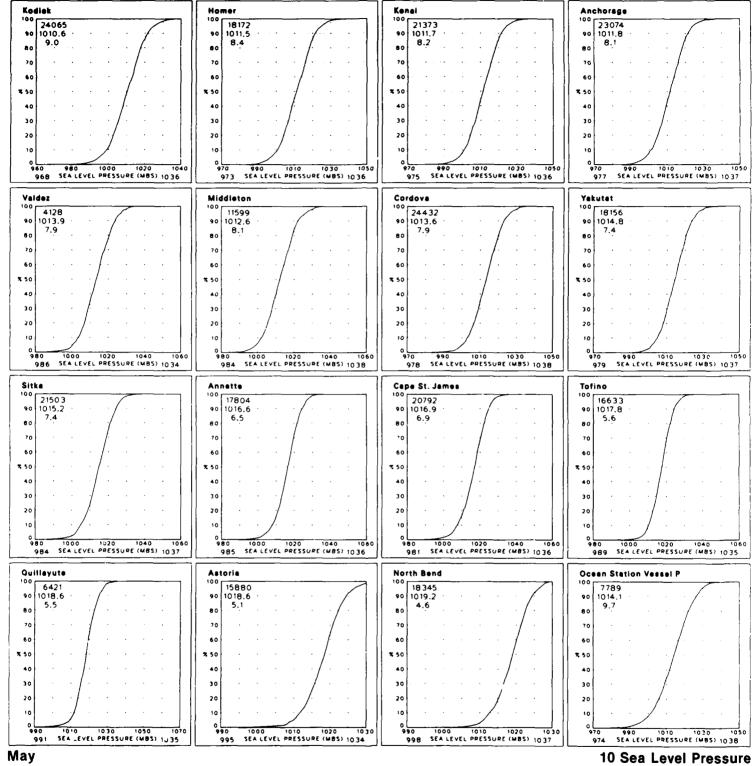
10 Mean Sea Level Pressure and Vector Mean Wind

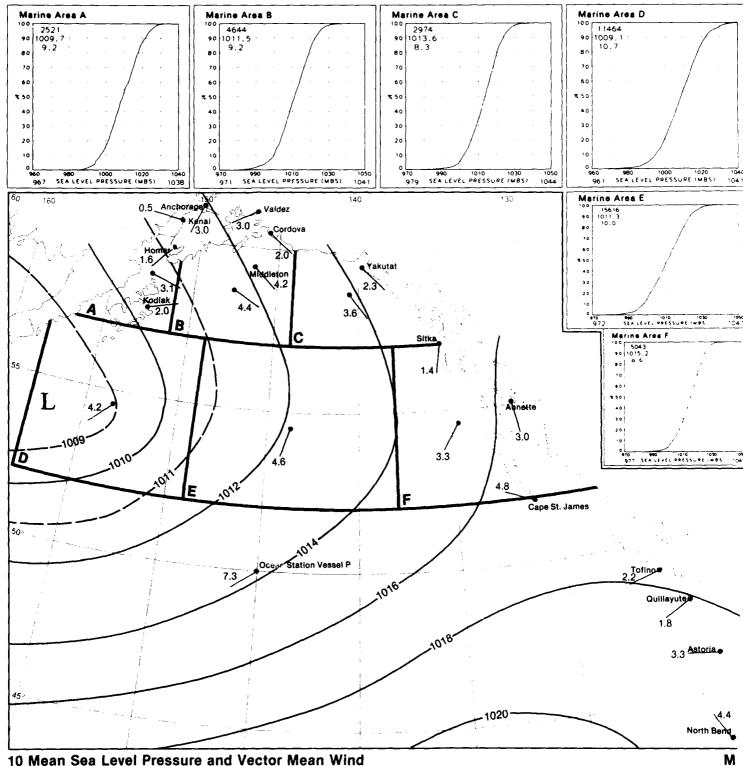


10 Sea Level Pressure

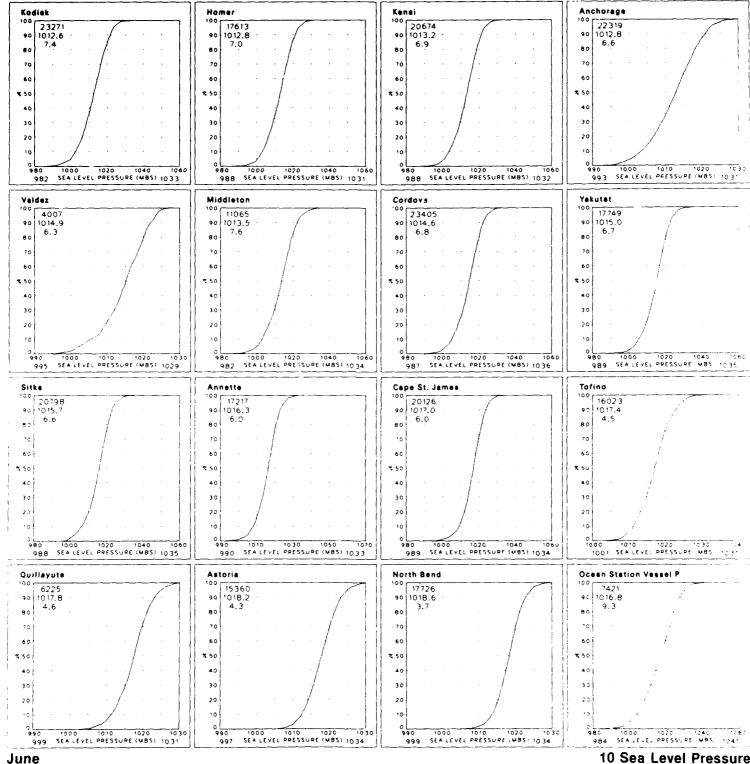


10 Mean Sea Level Pressure and Vector Mean v/ind

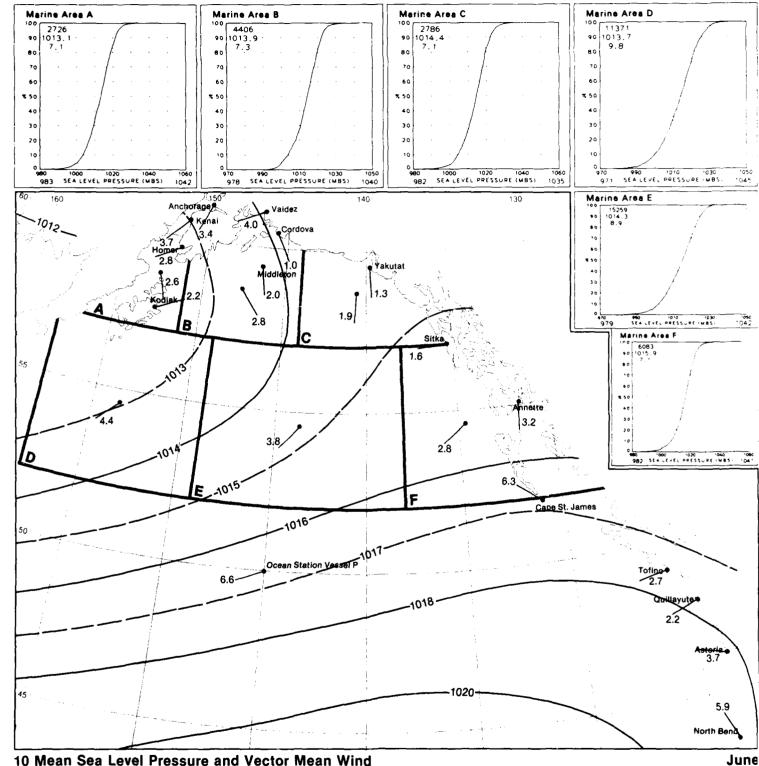




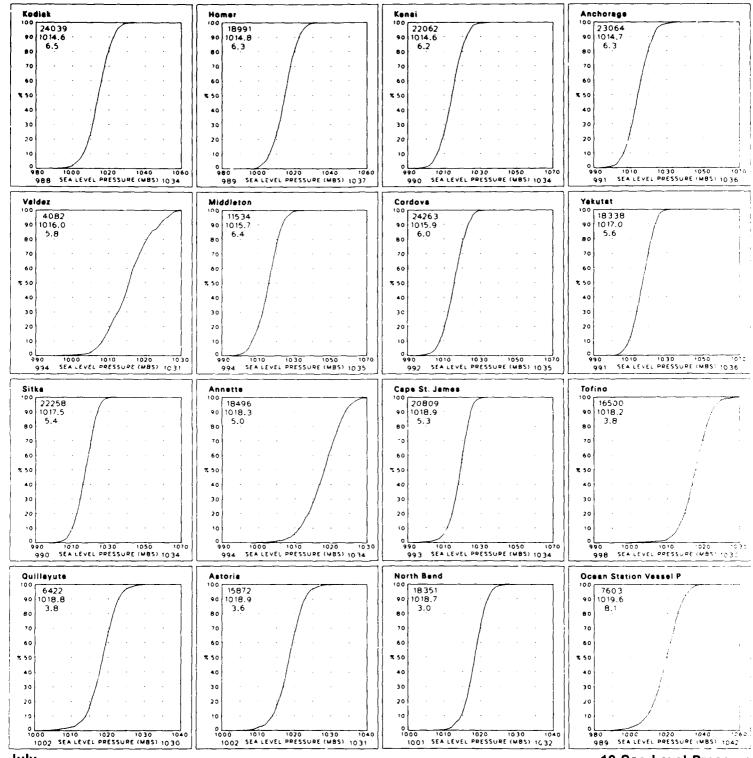
10 Mean Sea Level Pressure and Vector Mean Wind



10 Sea Level Pressure

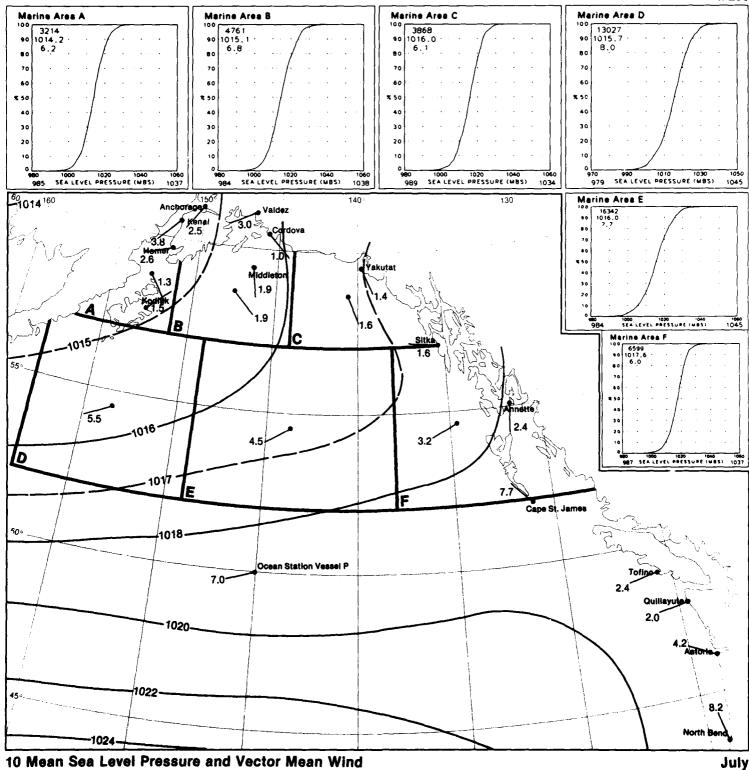


10 Mean Sea Level Pressure and Vector Mean Wind

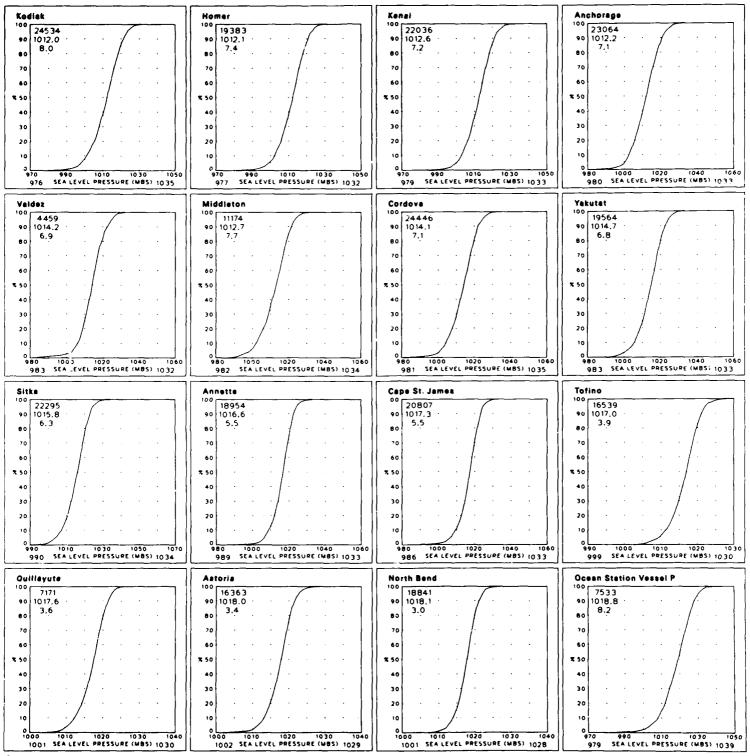


July

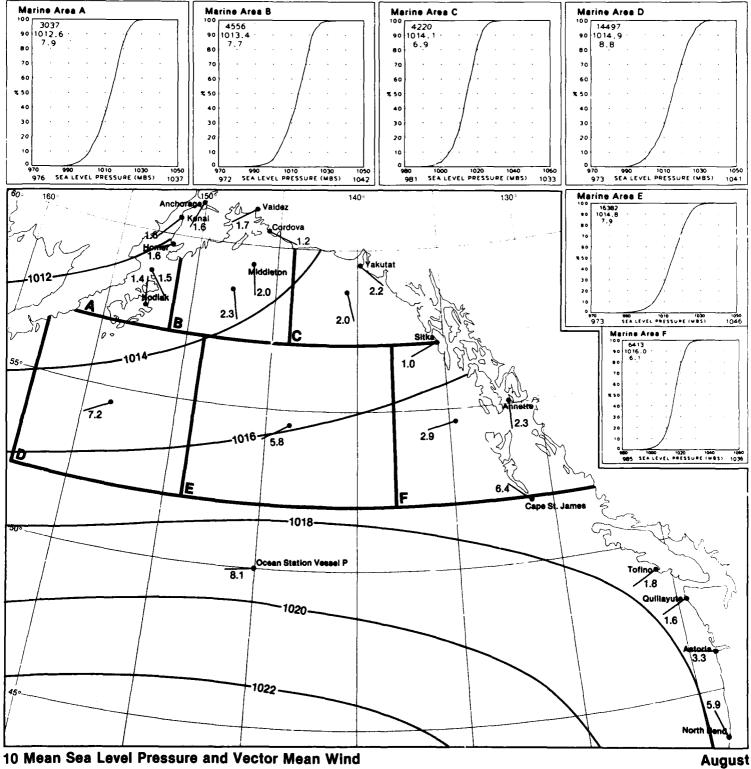
10 Sea Level Pressure

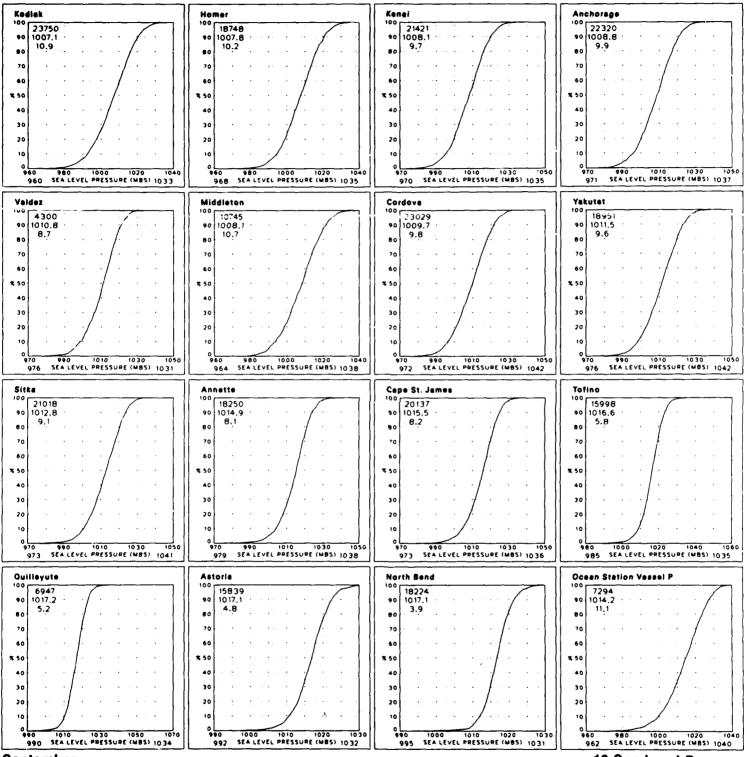


10 Mean Sea Level Pressure and Vector Mean Wind

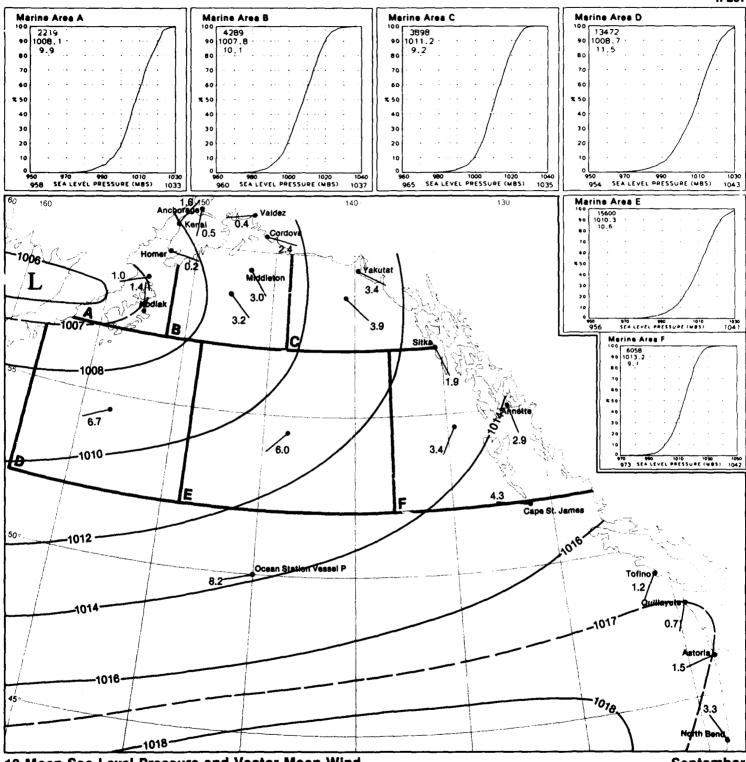


August 10 Sea Level Pressure





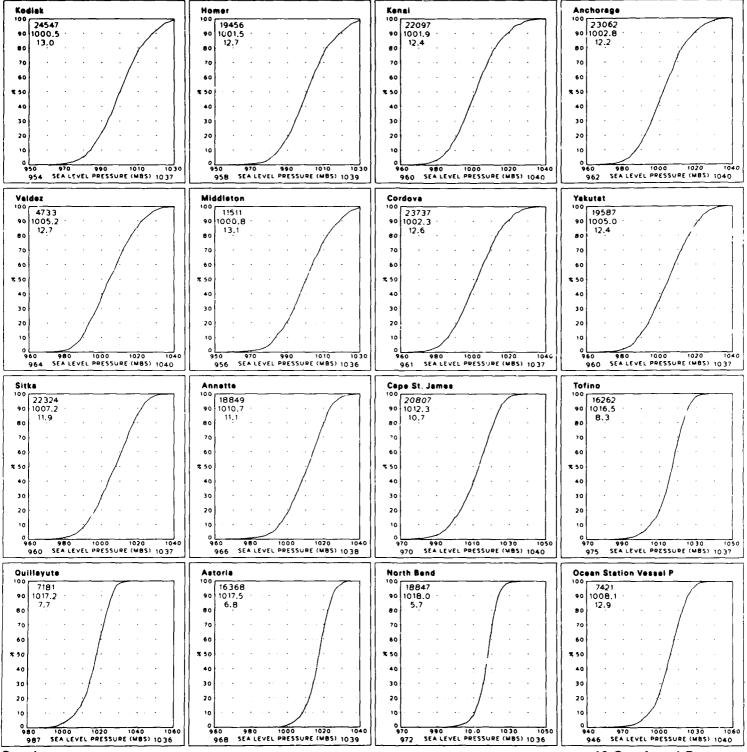
September 10 Sea Level Pressure



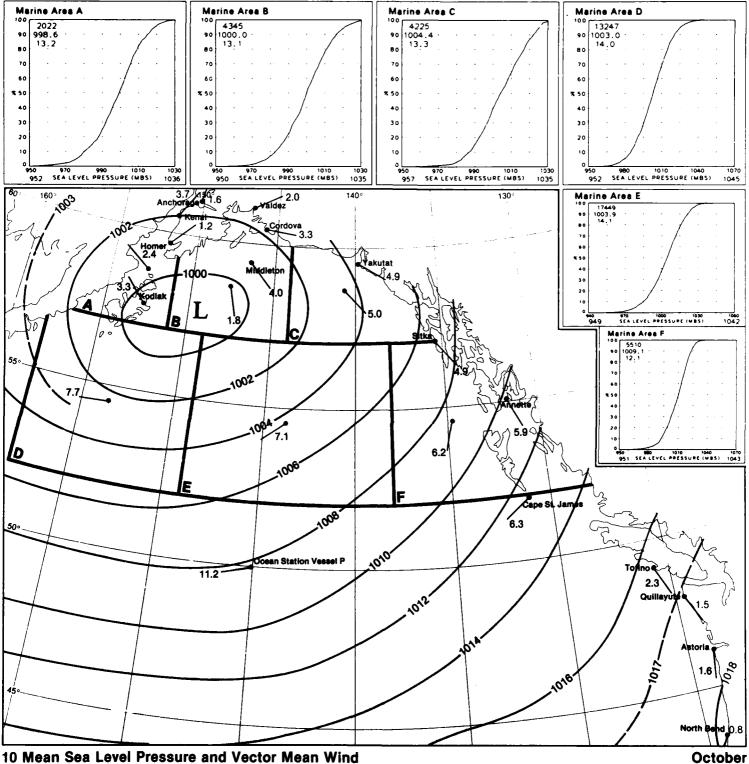
10 Mean Sea Level Pressure and Vector Mean Wind

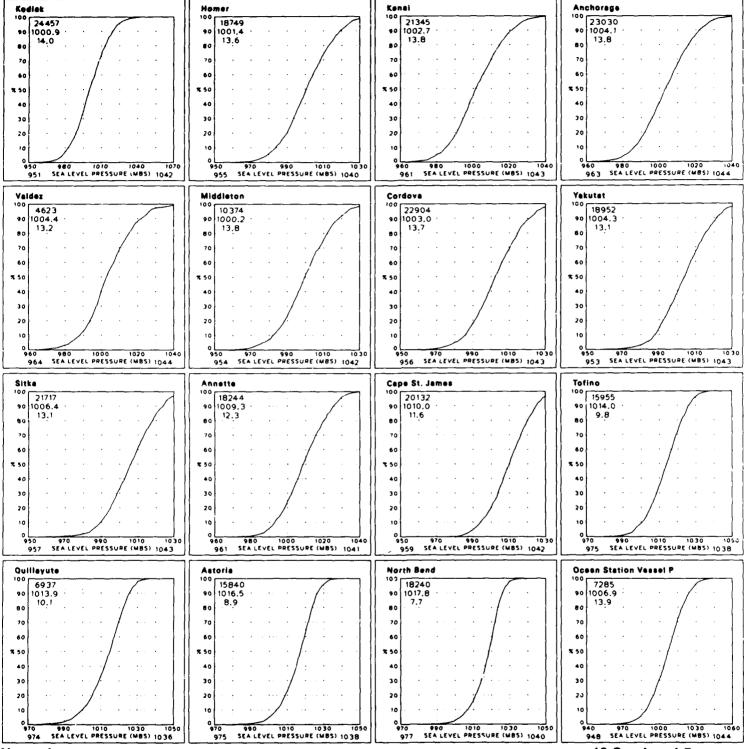
September

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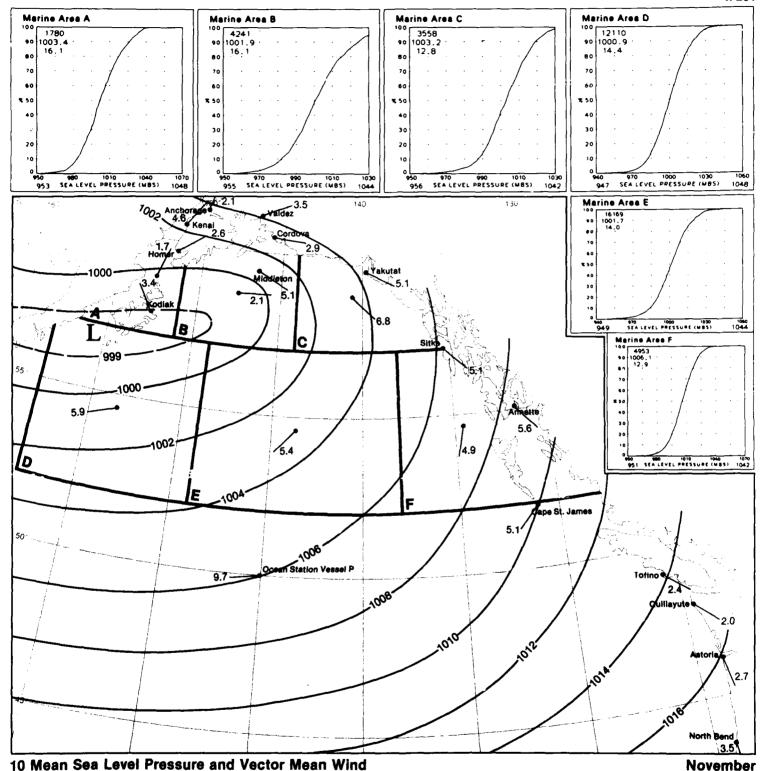


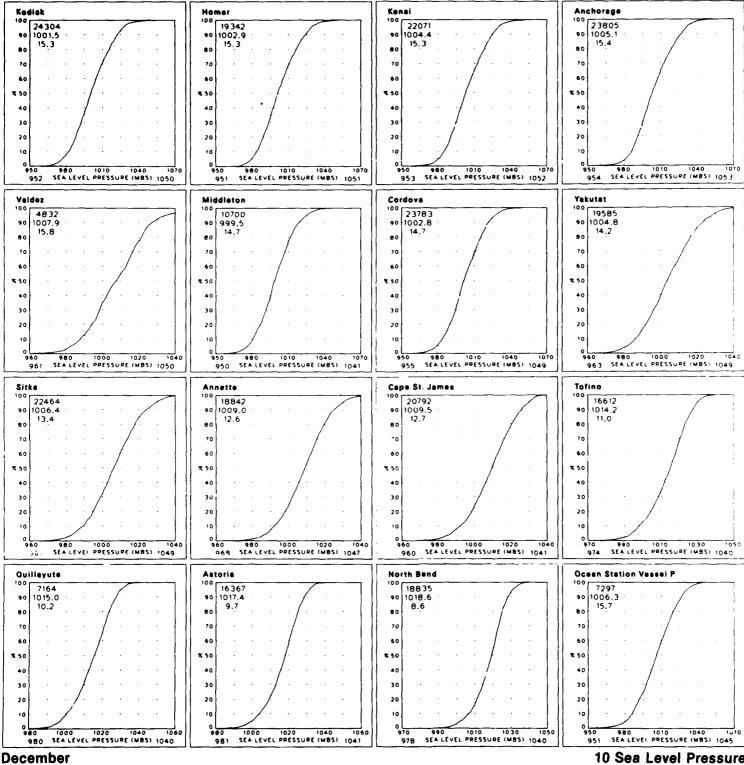
October 10 Sea Level Pressure



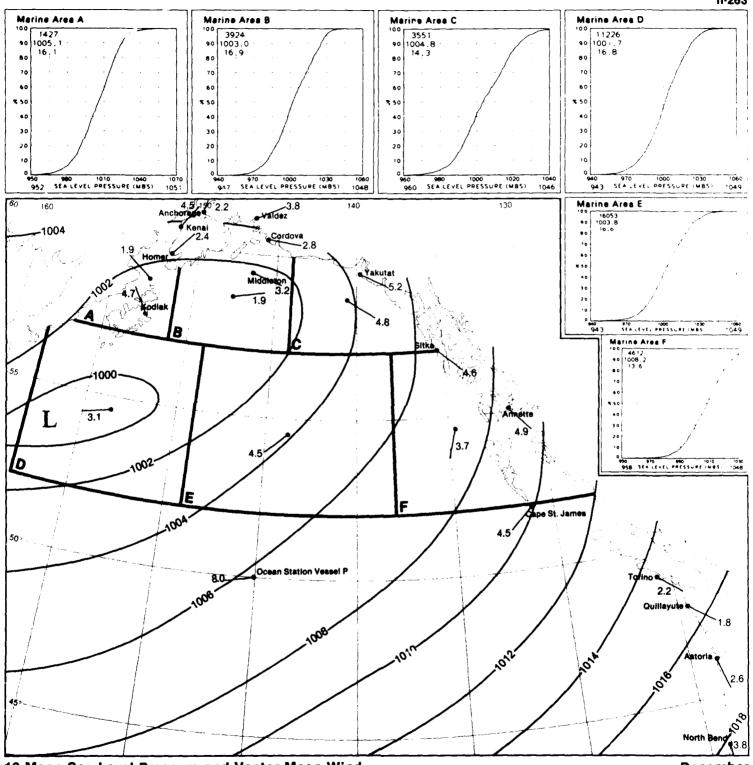


November 10 Sea Level Pressure





10 Sea Level Pressure



10 Mean Sea Level Pressure and Vector Mean Wind

December

## Map 11. Wind speed ≤10 and ≥34 knots

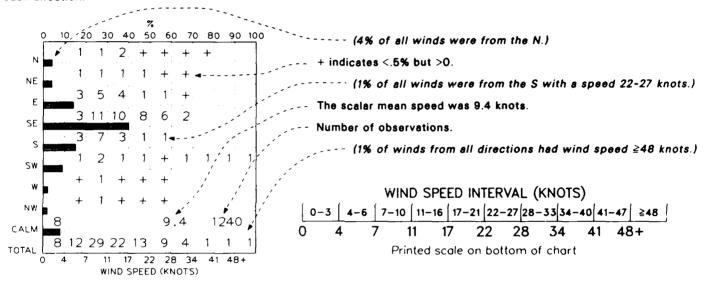
BLACK LINE - Percent frequency of wind speed ≤10 knots (≤12 mph).

BLUE LINE - Percent frequency of wind speed ≥34 knots (≥39 mph).

Albers Equal-Area Conic Projection

## Graphs: Wind speed/direction

Direction frequency (top scale): Bars represent percent frequency of winds observed from each direction. Speed frequency (bottom scale): Printed figures represent percent frequency of wind speeds observed from each direction.

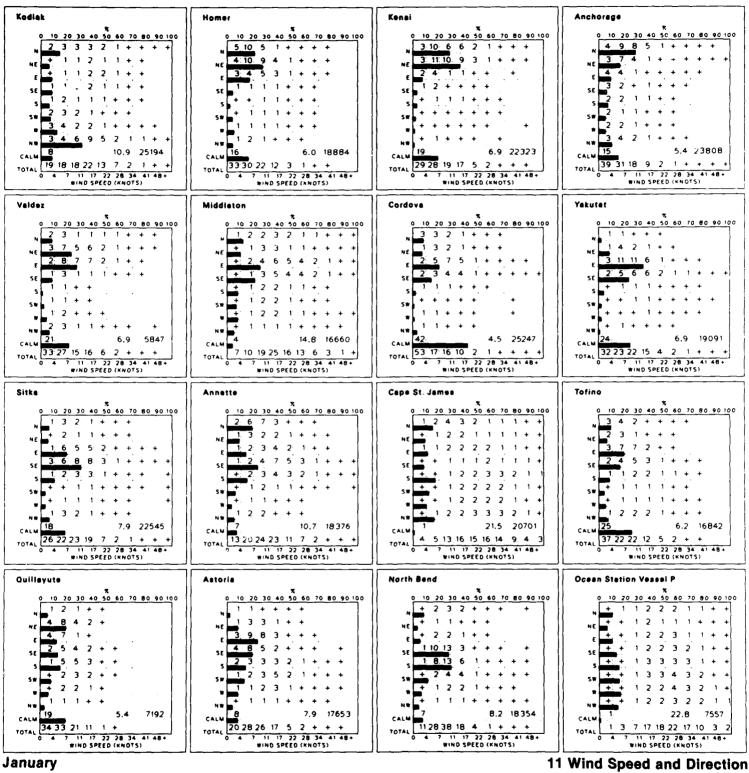


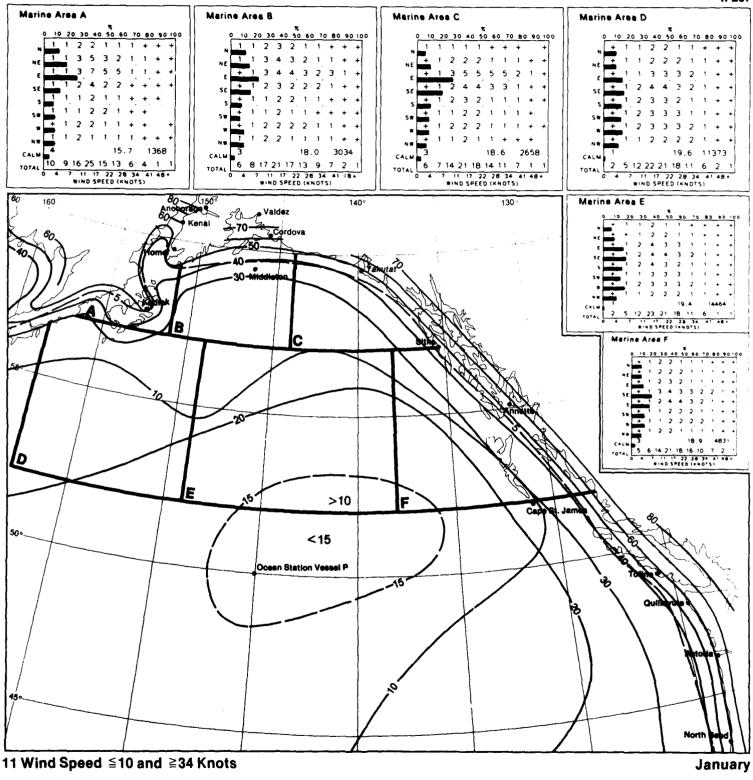
The scalar mean wind speed on the graph is based on the number of observations reporting a wind speed with direction. The sum of the TOTAL line provides the cumulative percent frequency of wind speed below a selected threshold value. In the legend graph, 71% of all winds were less than 17 knots (20 mph). The sum of the percent frequencies of the four wind speed isopleths for a given month and location on Map Sets 11 and 12 should equal 100%.

Surface wind is one of the most commonly observed elements. Many of the observations from the NCDC data base are visual observations based on the roughness of the sea (see table in text of Set 14). In recent years, more ships acquired anemometers and reported measured winds. Prior to 1963, many of the winds were recorded in the Beaufort scale; such estimates have proven to be quite reliable and can be used with a high degree of confidence.

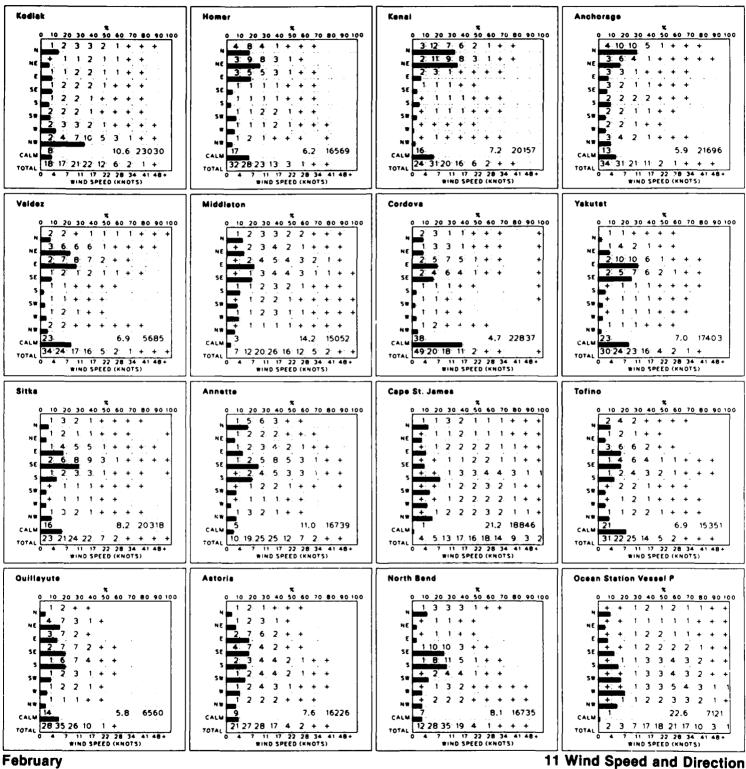
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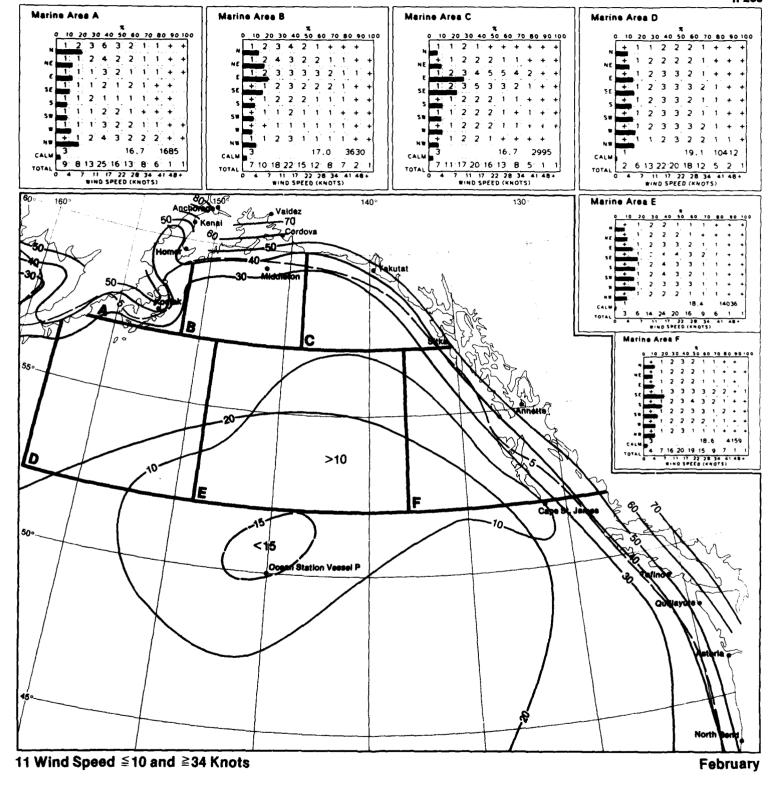
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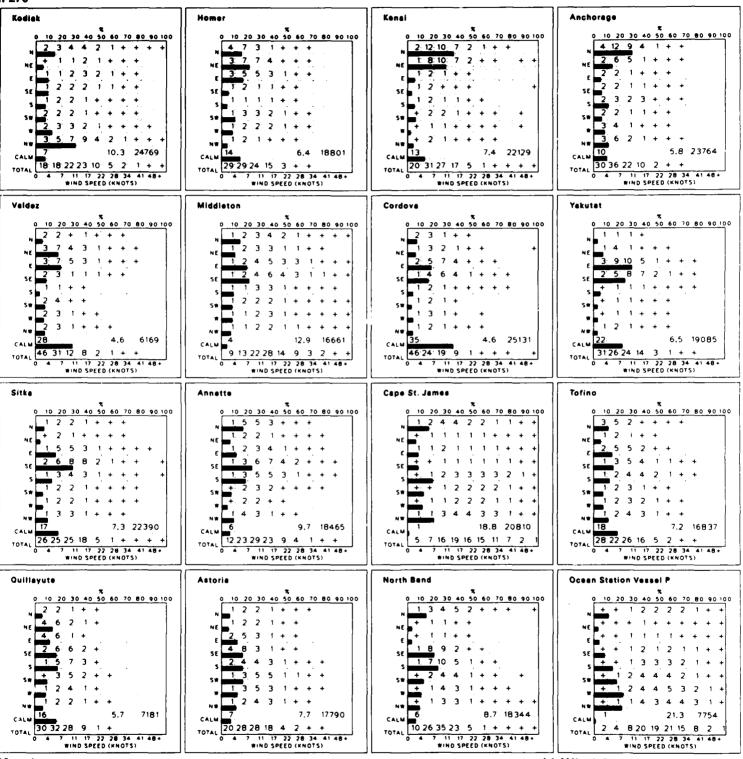




## 11-268

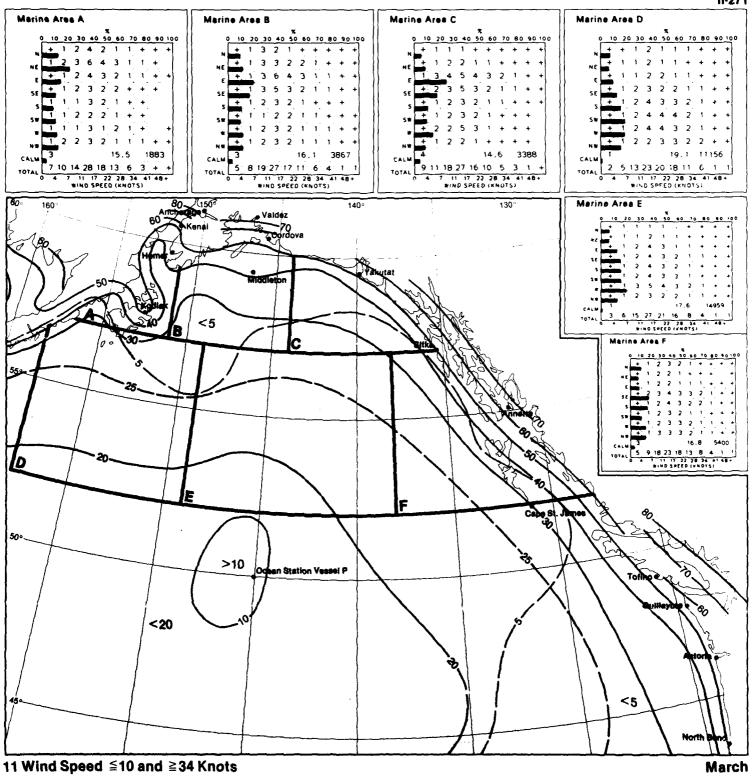


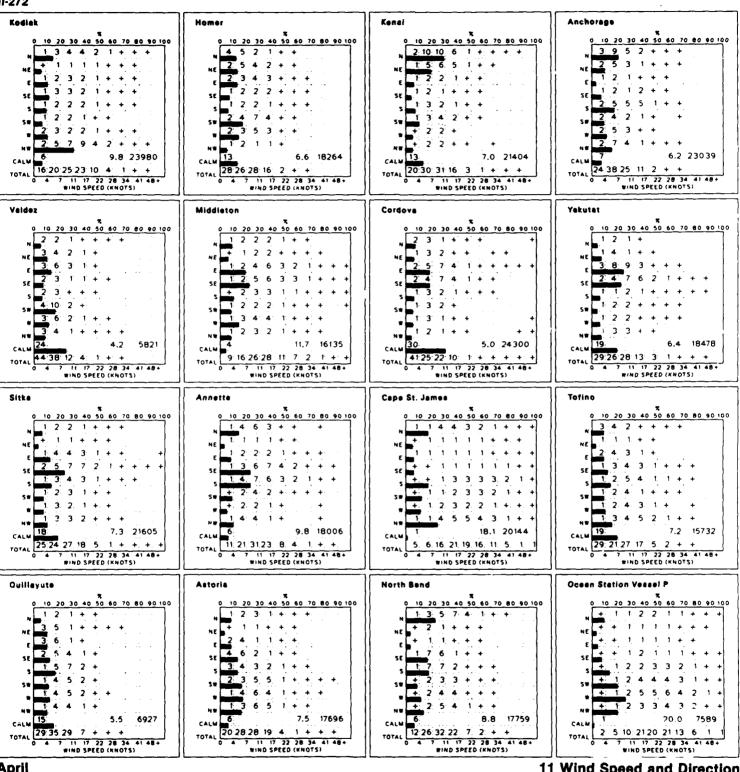




March

11 Wind Speed and Direction

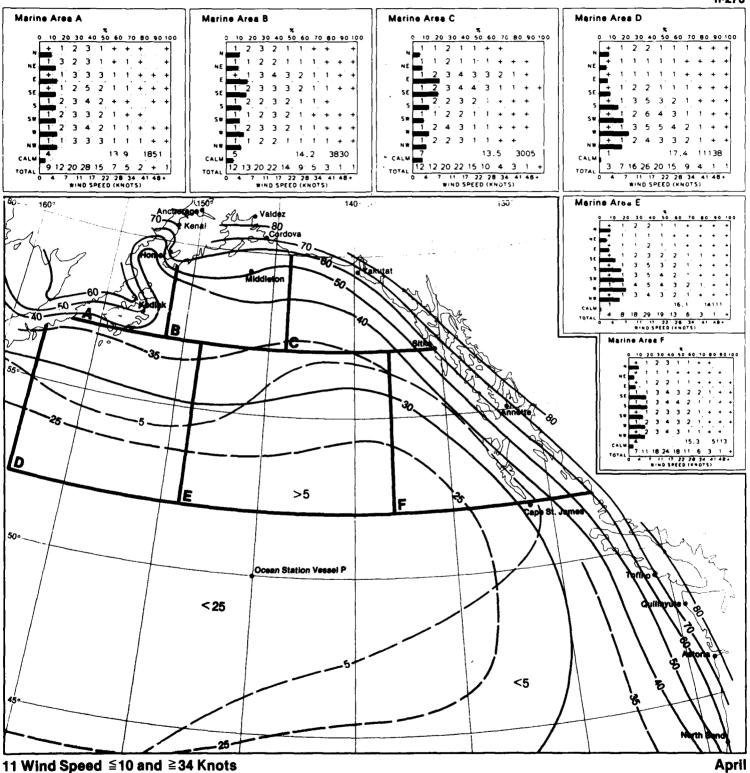


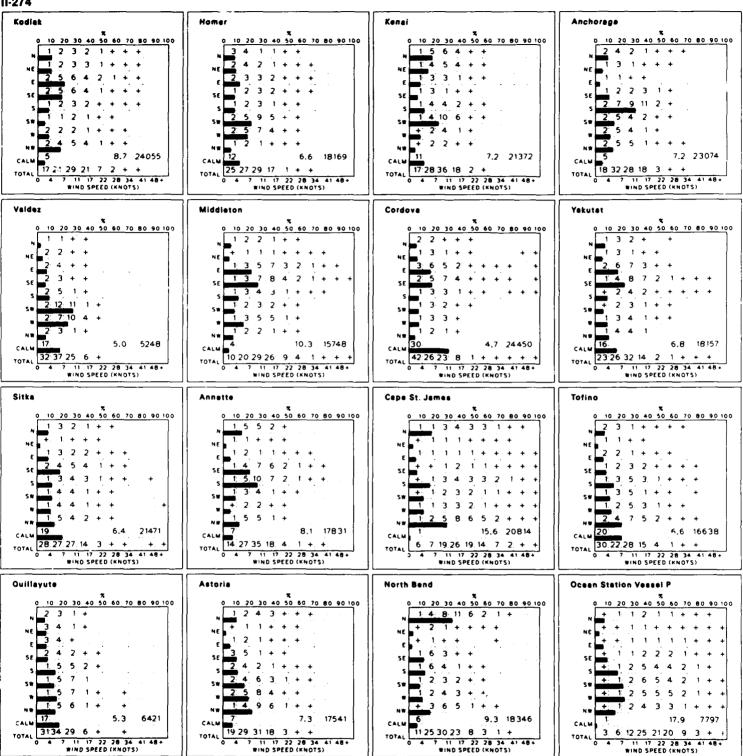


April

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11 Wind Speed and Direction

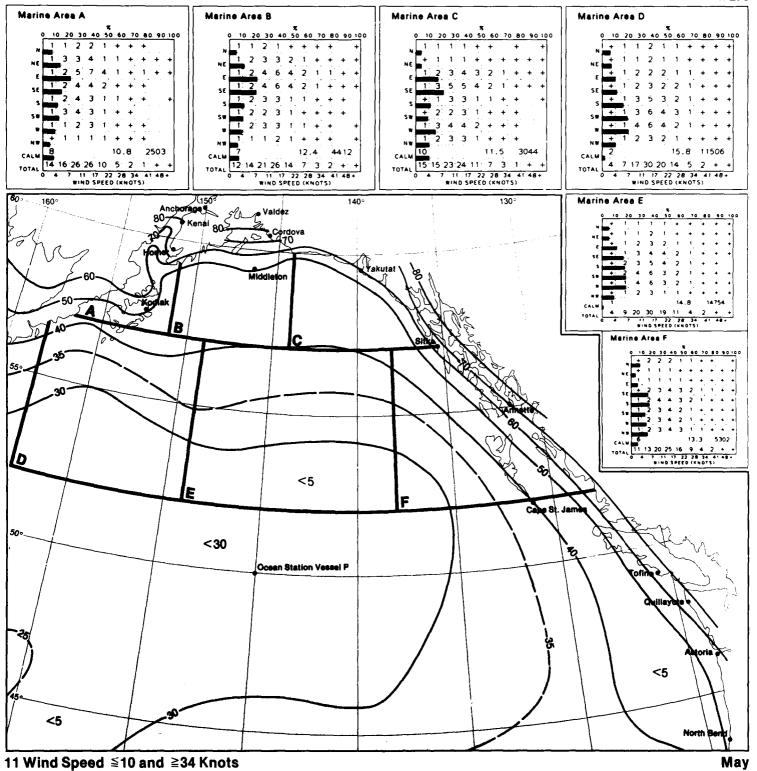


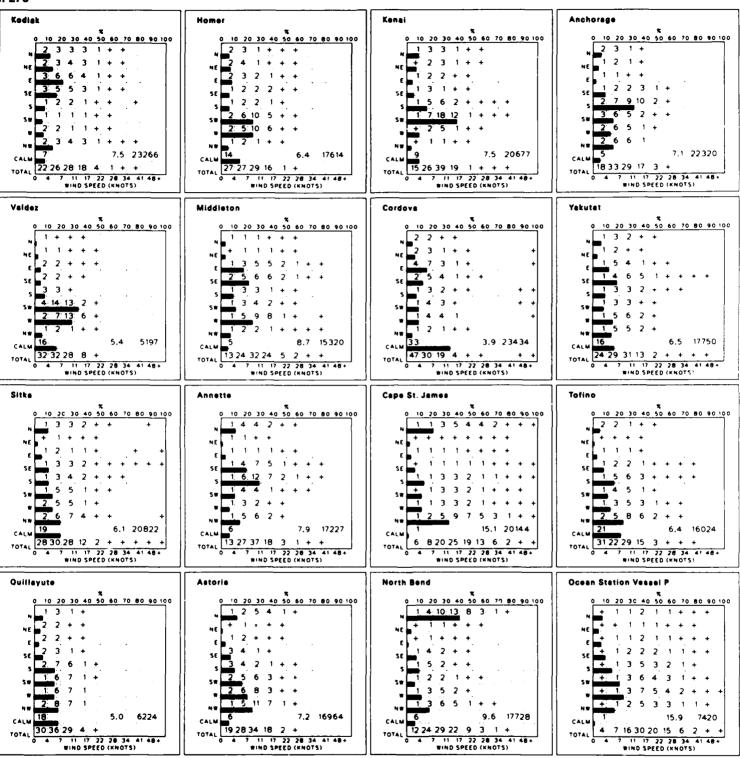


May

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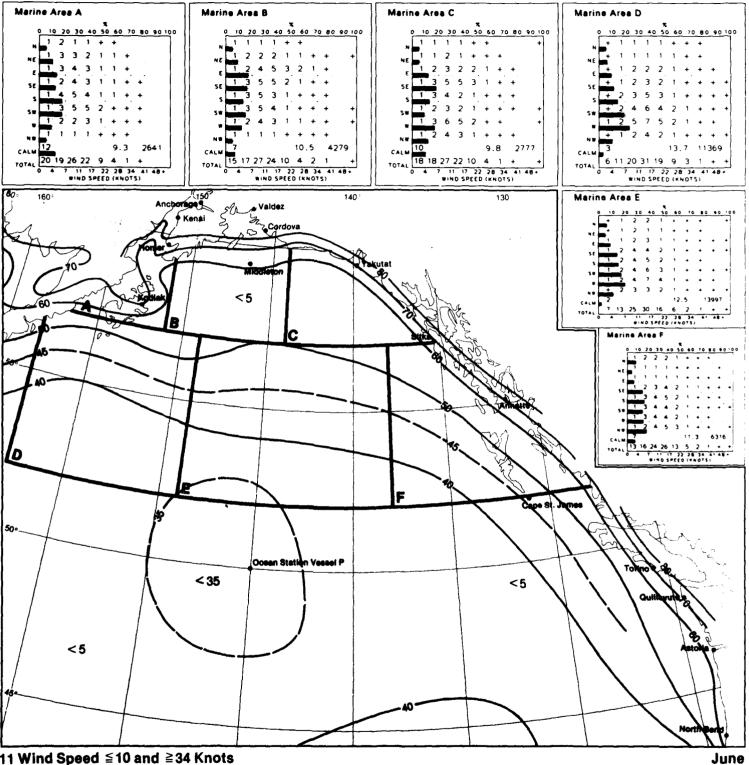
11 Wind Speed and Direction



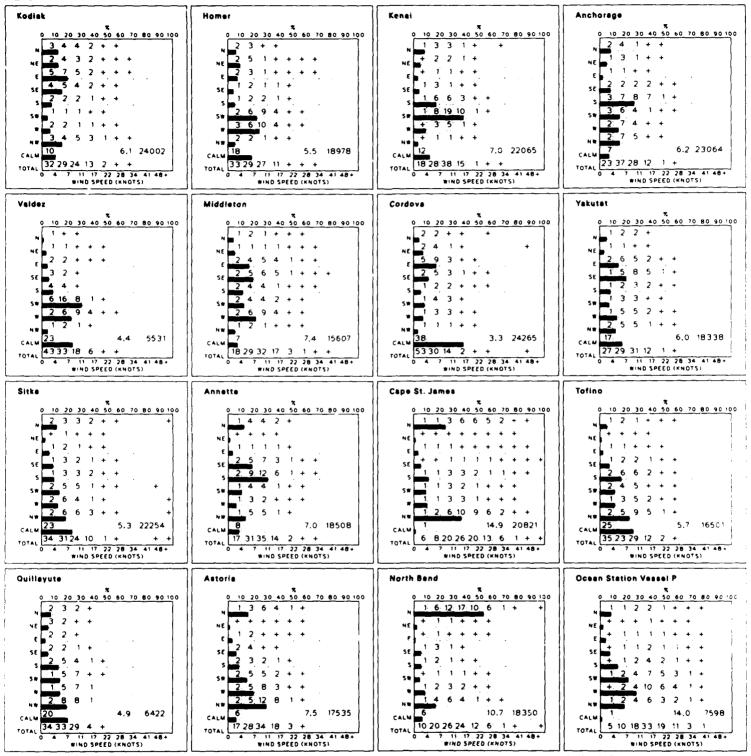


June

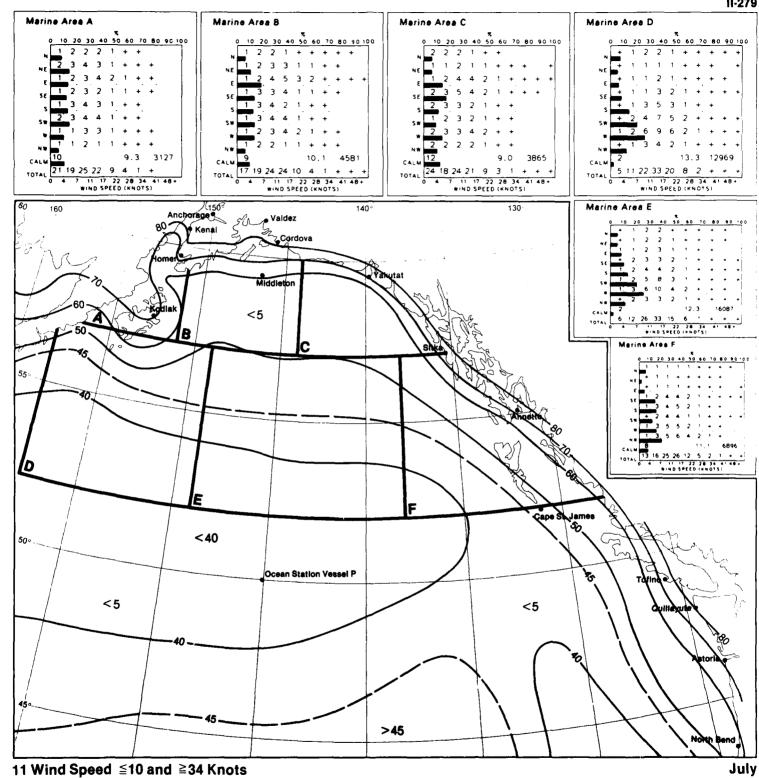
11 Wind Speed and Direction



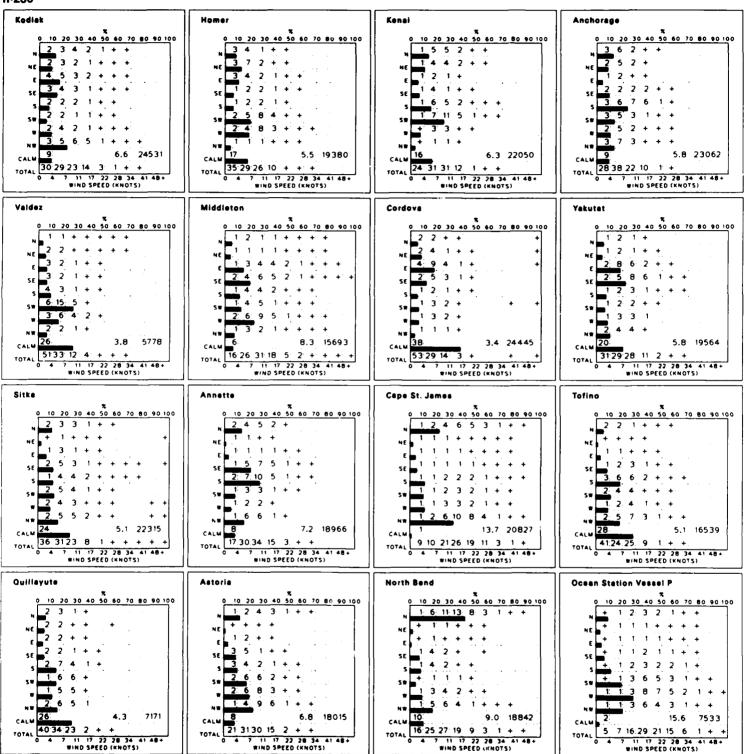
11 Wind Speed ≦10 and ≧34 Knots



July 11 Wind Speed and Direction

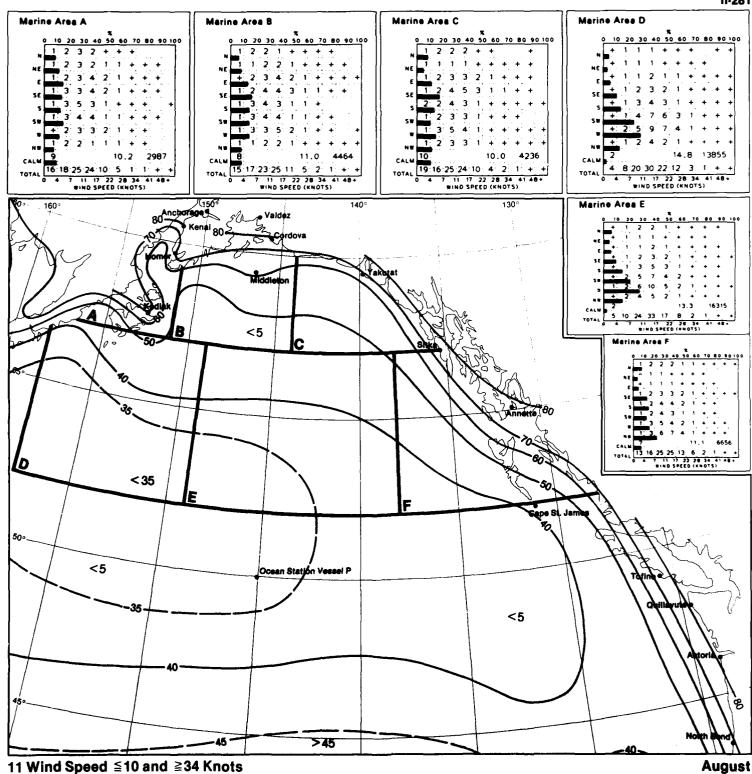


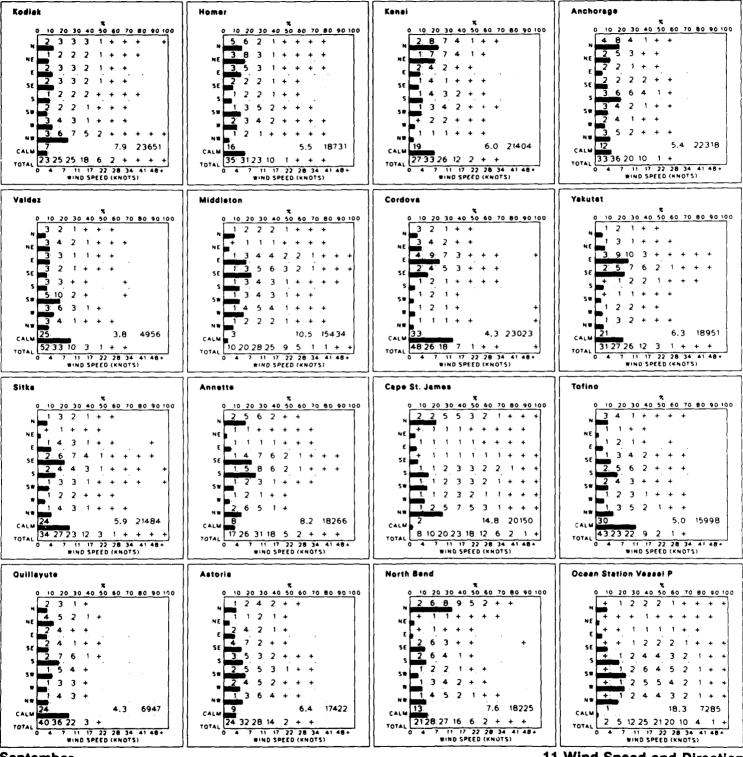
## 11-280



August

11 Wind Speed and Direction

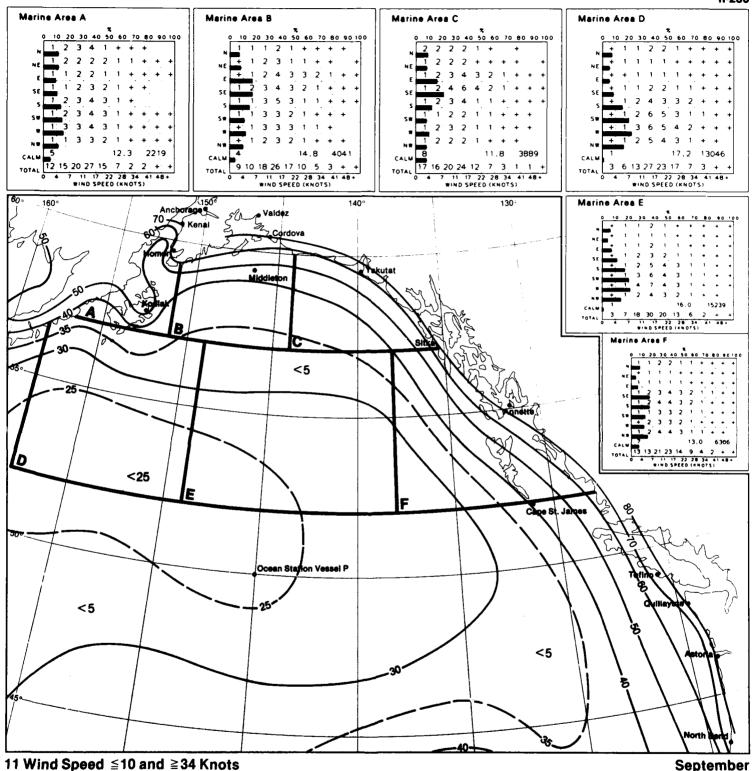




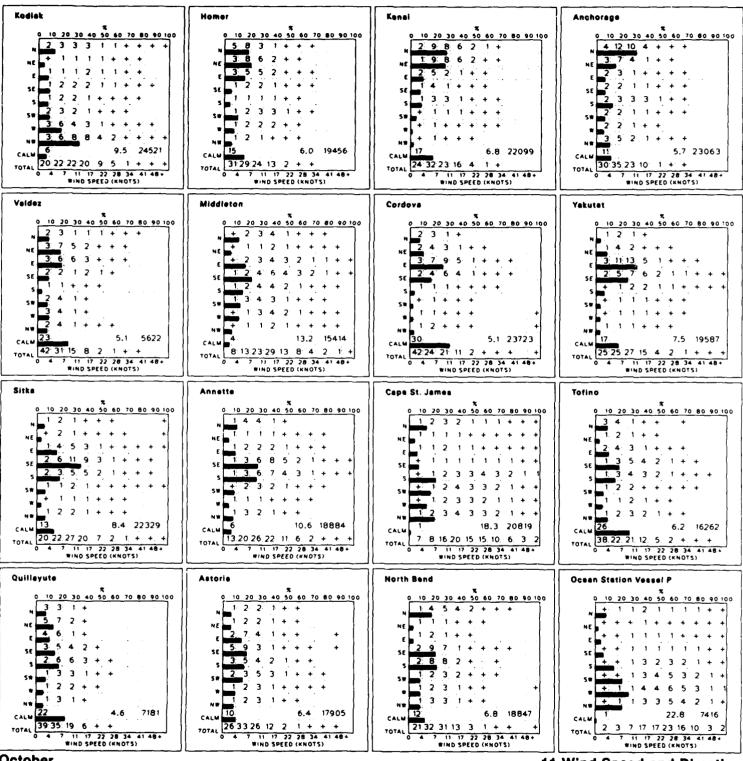
September

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11 Wind Speed and Direction

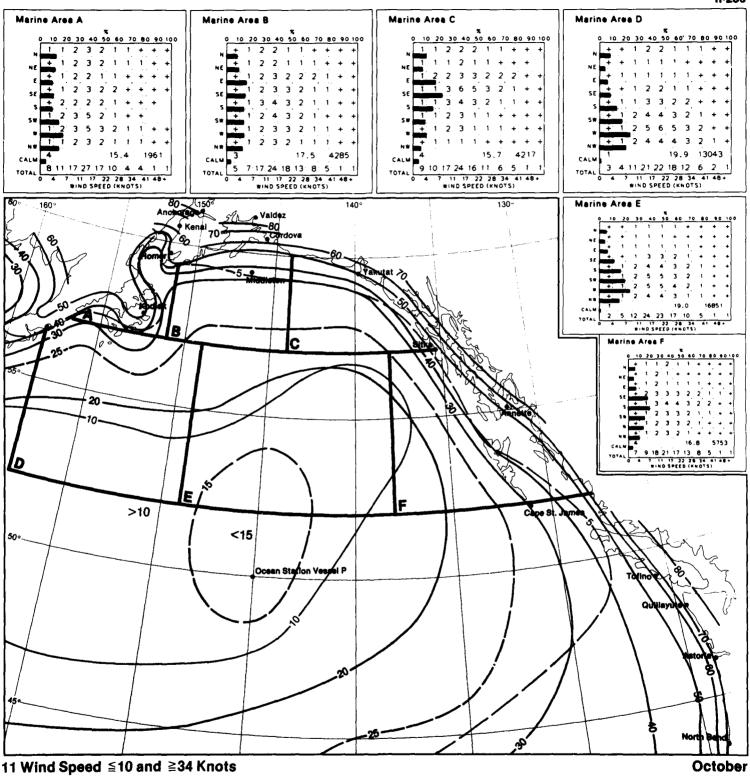


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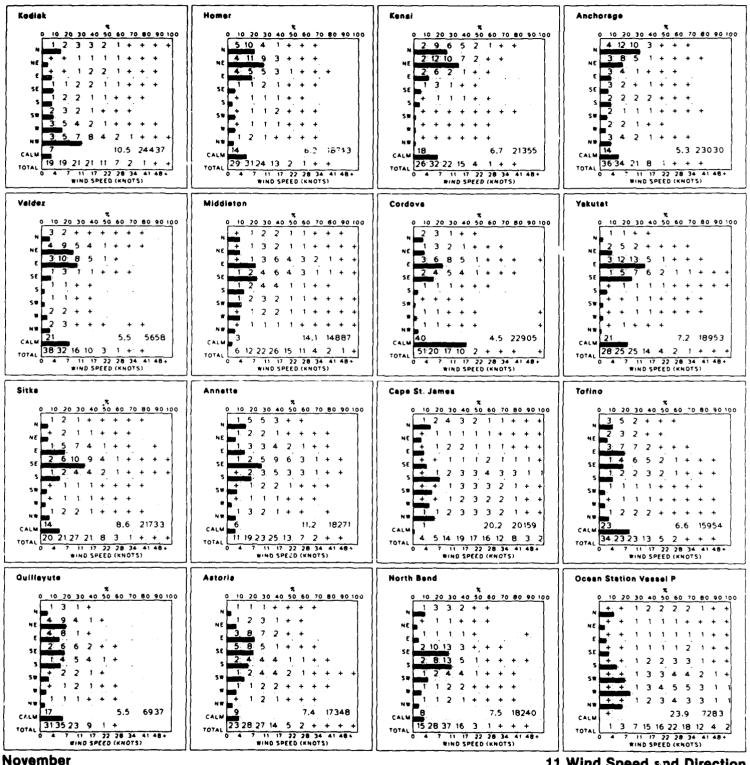


**October** 

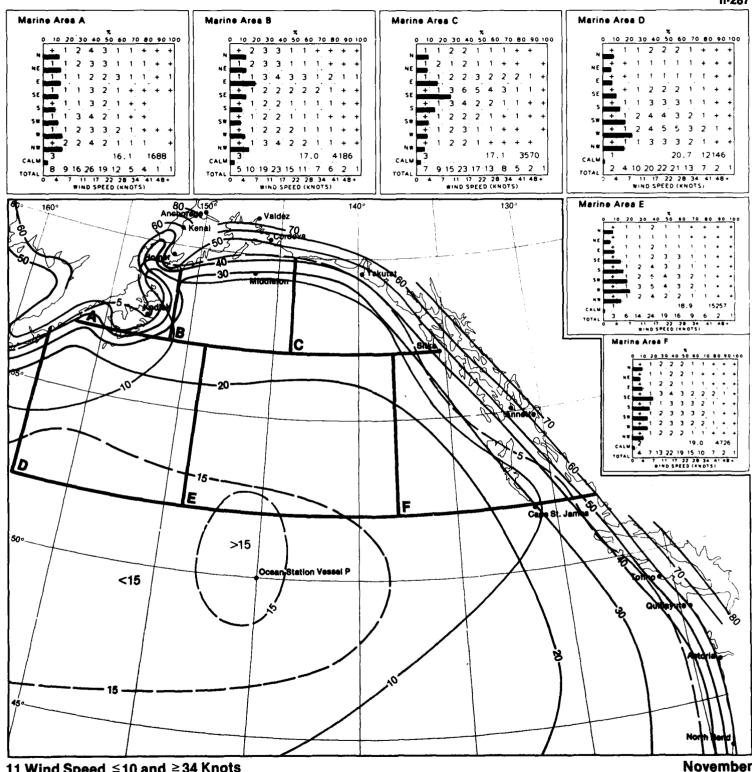
11 Wind Speed and Direction



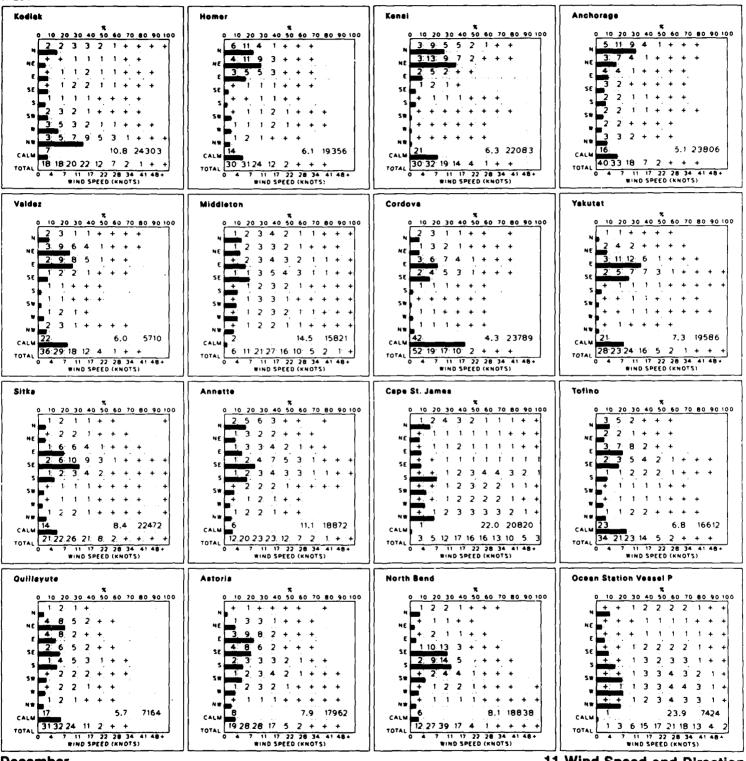
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11 Wind Speed and Direction

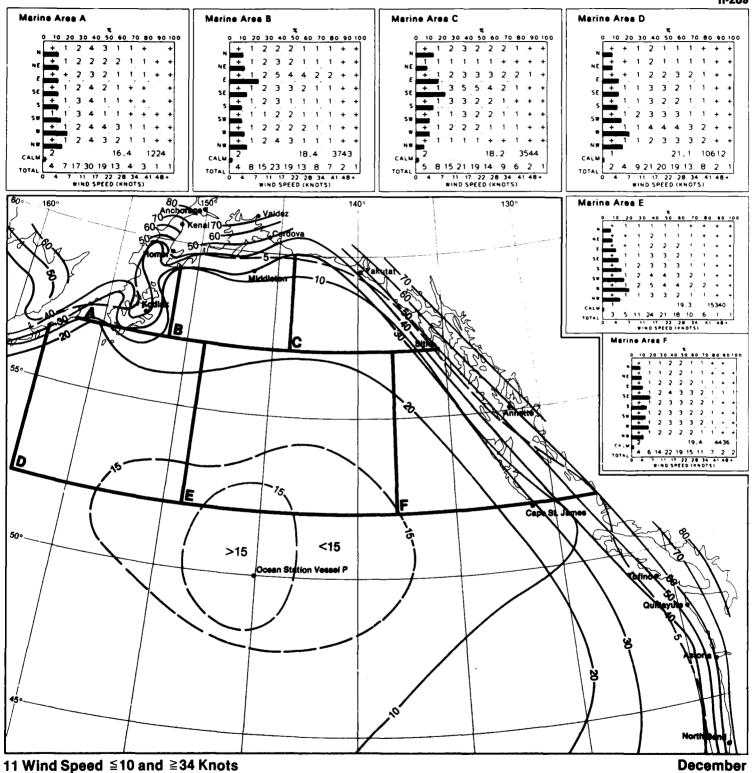


11 Wind Speed ≦10 and ≧34 Knots



December

11 Wind Speed and Direction



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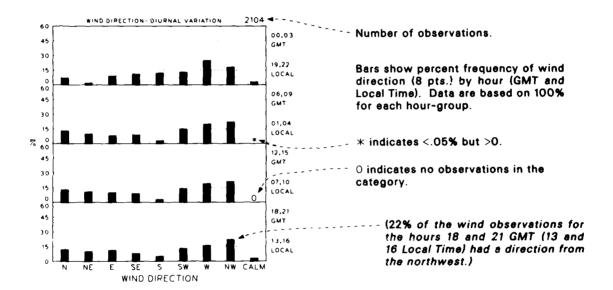
## Map 12. Wind speed 11-21 and 22-33 knots

BLACK LINE - Percent frequency of wind speed 11-21 knots.

BLUE LINE - Percent frequency of wind speed 22-33 knots.

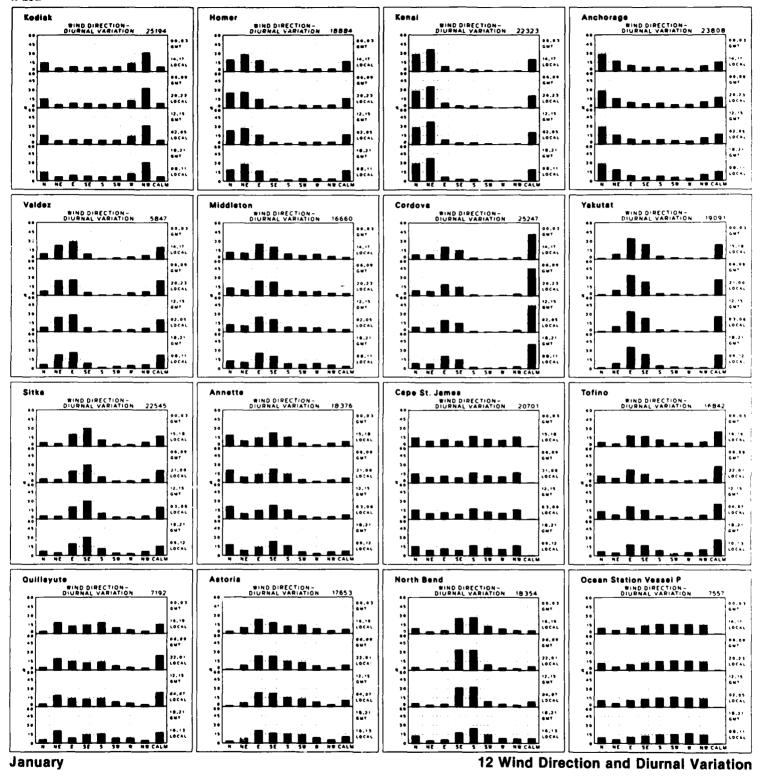
Albers Equal—Area Conic Projection

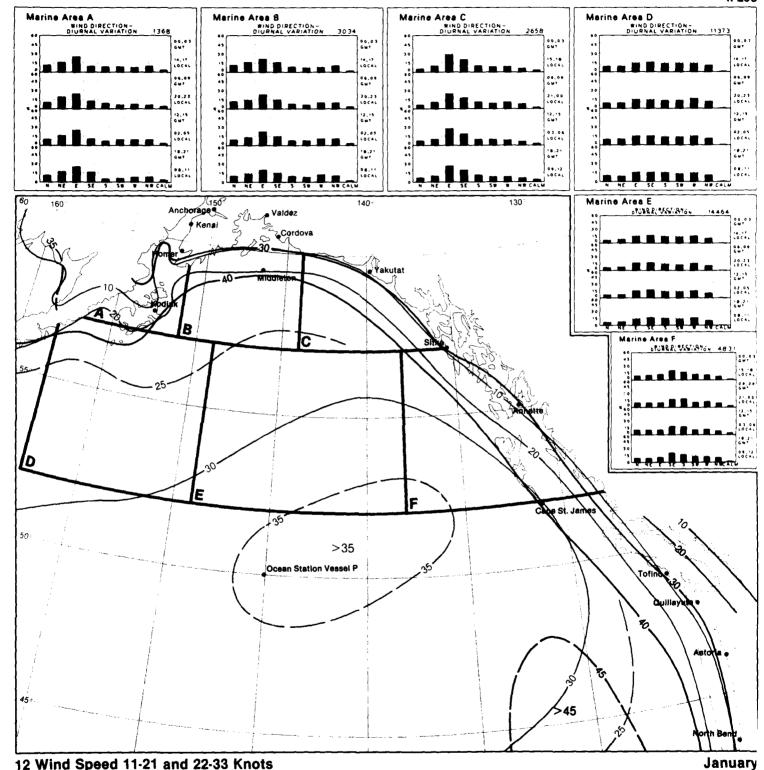
## Graphs: Wind direction/diurnal variation



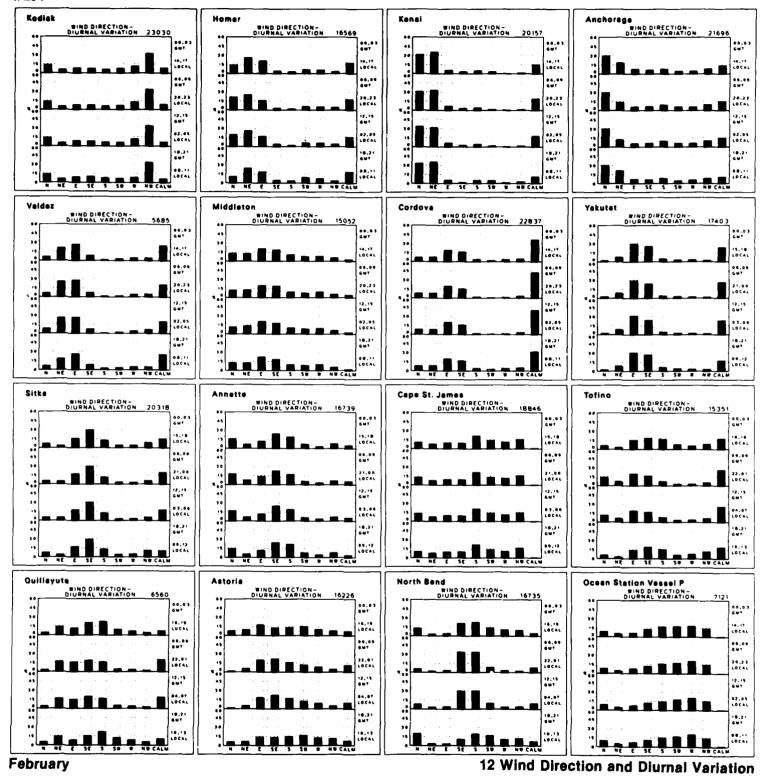
The historical marine data file at the NCDC is made up of data collected and recorded since 1854 in several different units of measurement. Wind direction has been recorded over the years in the 16-, 32-, and 36-point scale. A reduced biasing system was employed in converting wind direction to the 8-point scale used in this atlas. This method attached weighting values to observations which overlap two different 8-point sectors and treats them as "fractional observation counts."

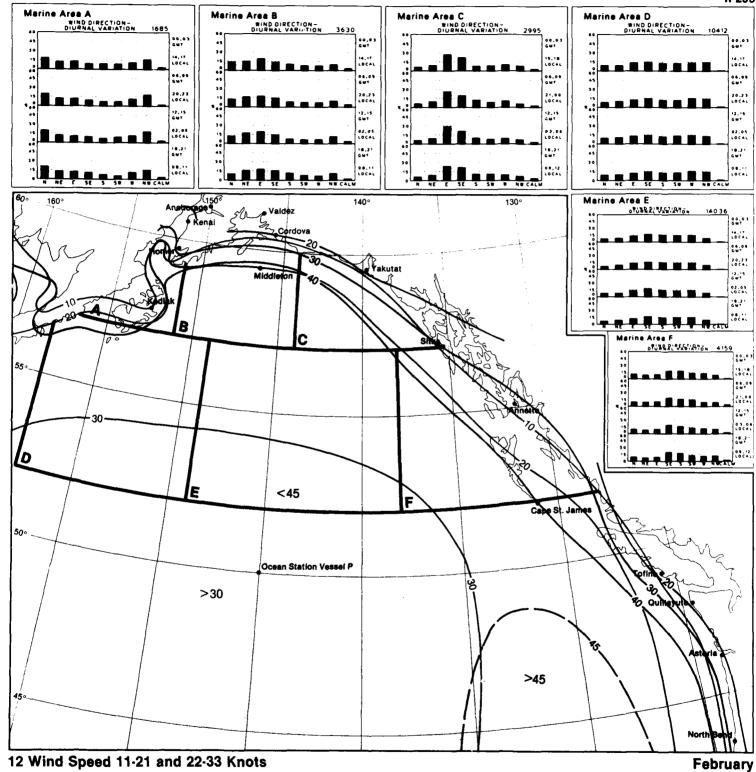
12 Legend Legend 12

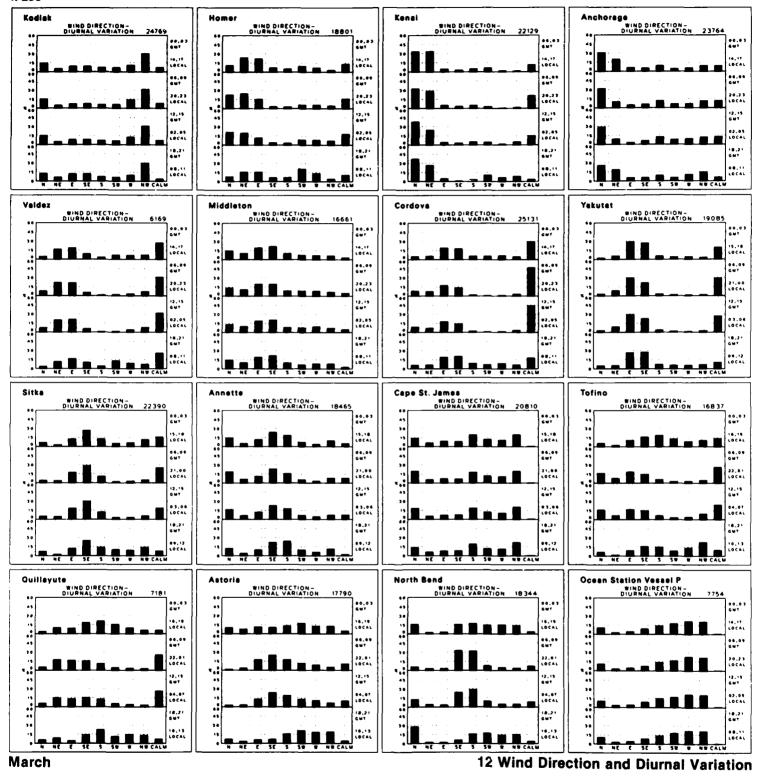


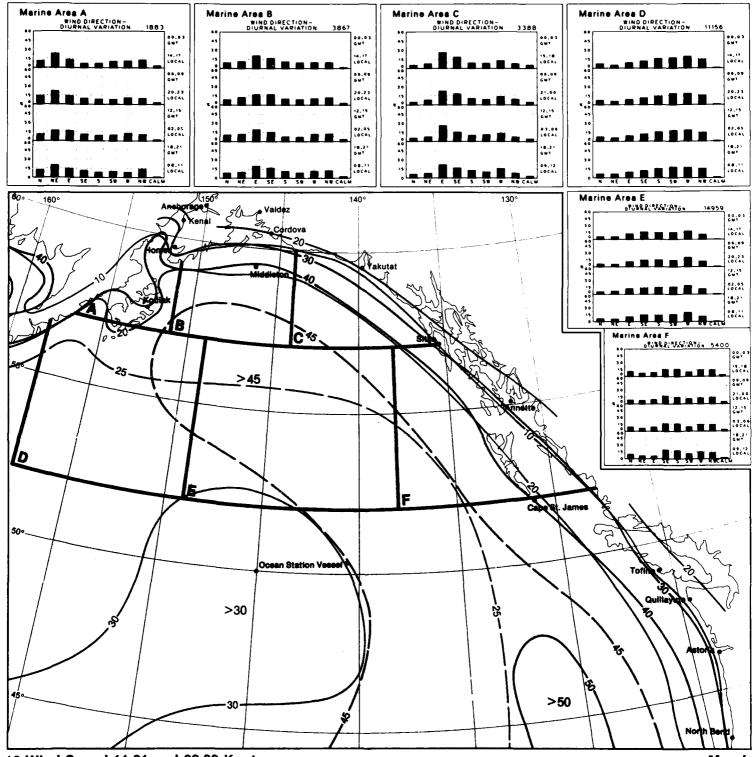


12 Wind Speed 11-21 and 22-33 Knots



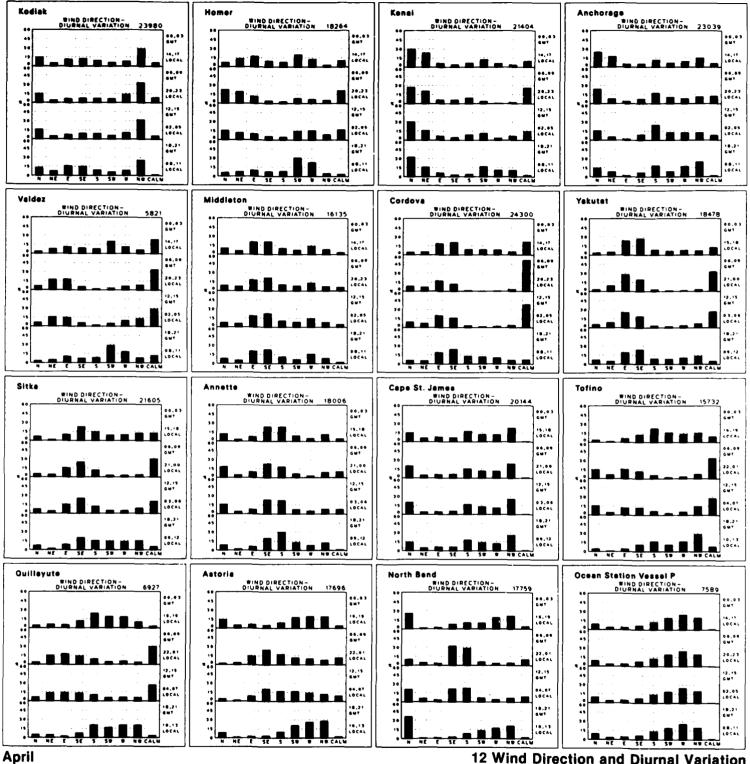




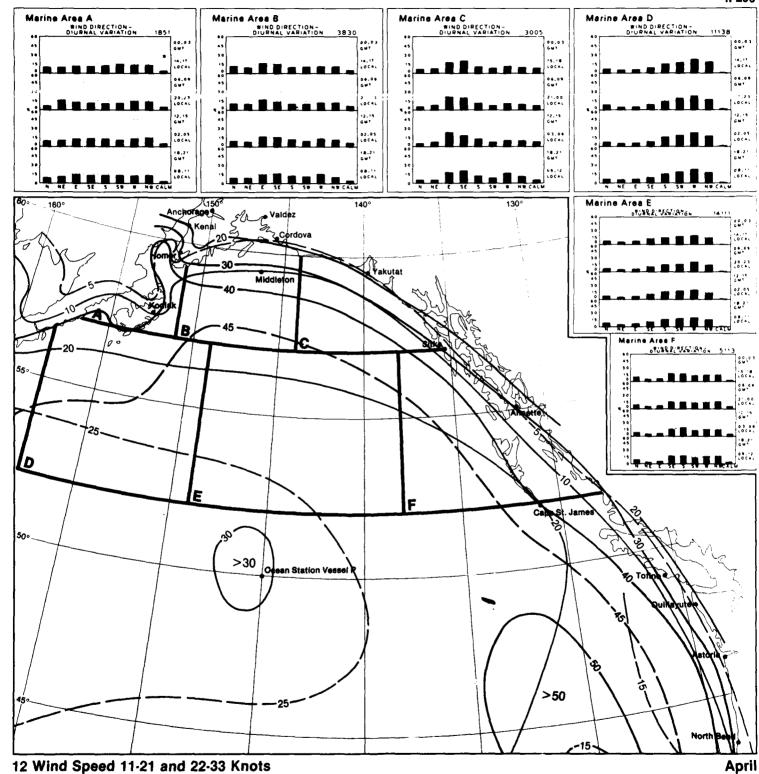


12 Wind Speed 11-21 and 22-33 Knots

March



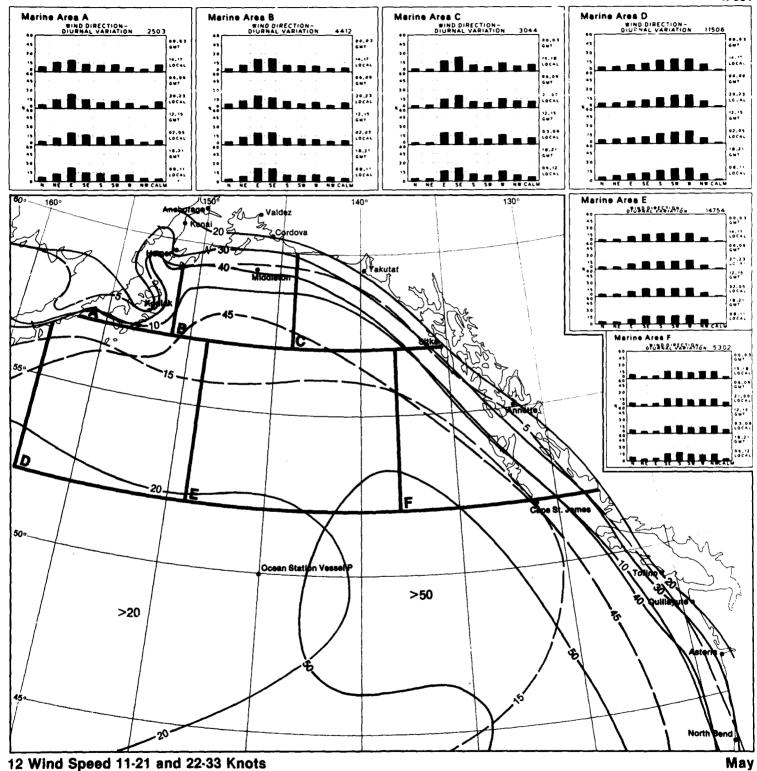
12 Wind Direction and Diurnal Variation



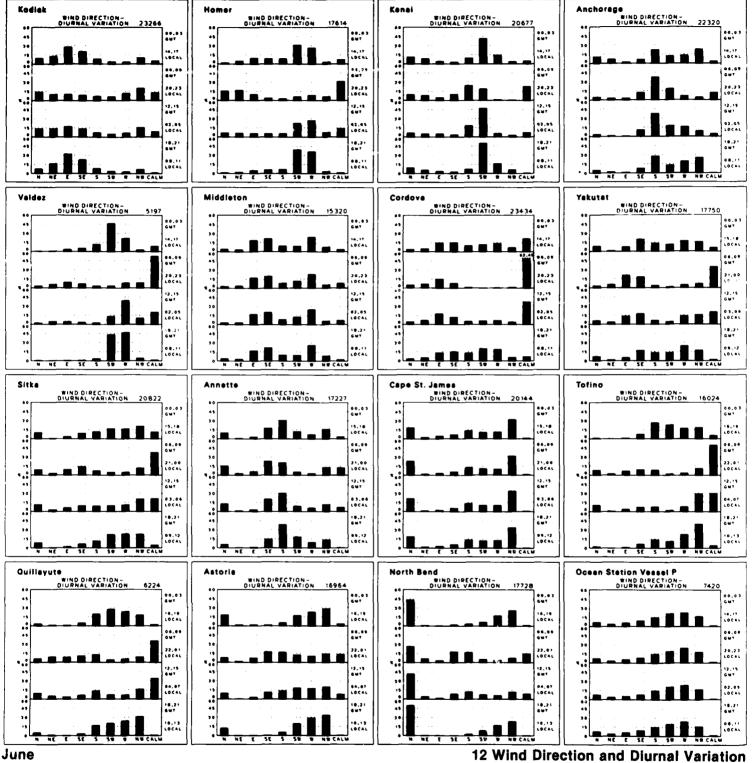
12 Wind Speed 11-21 and 22-33 Knots

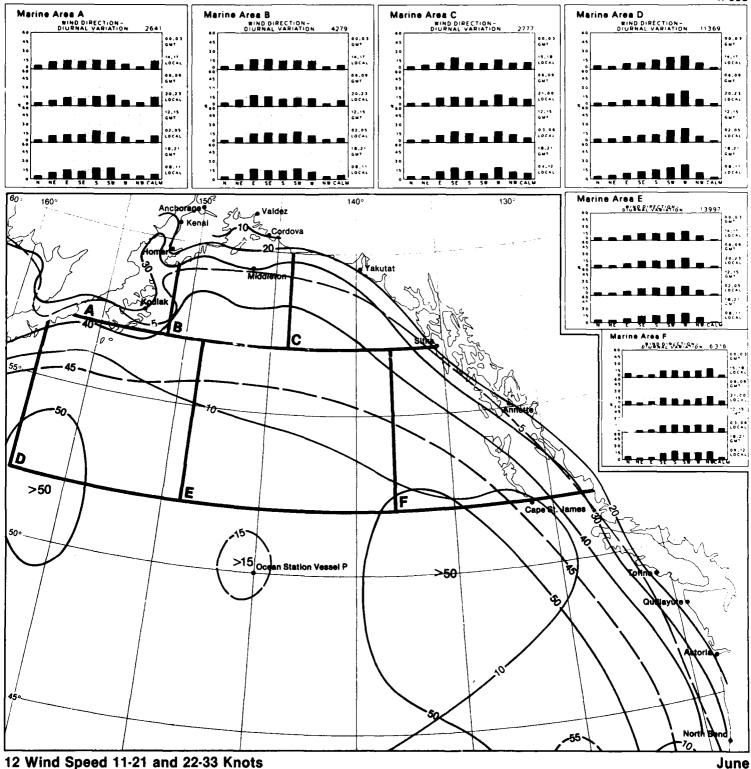


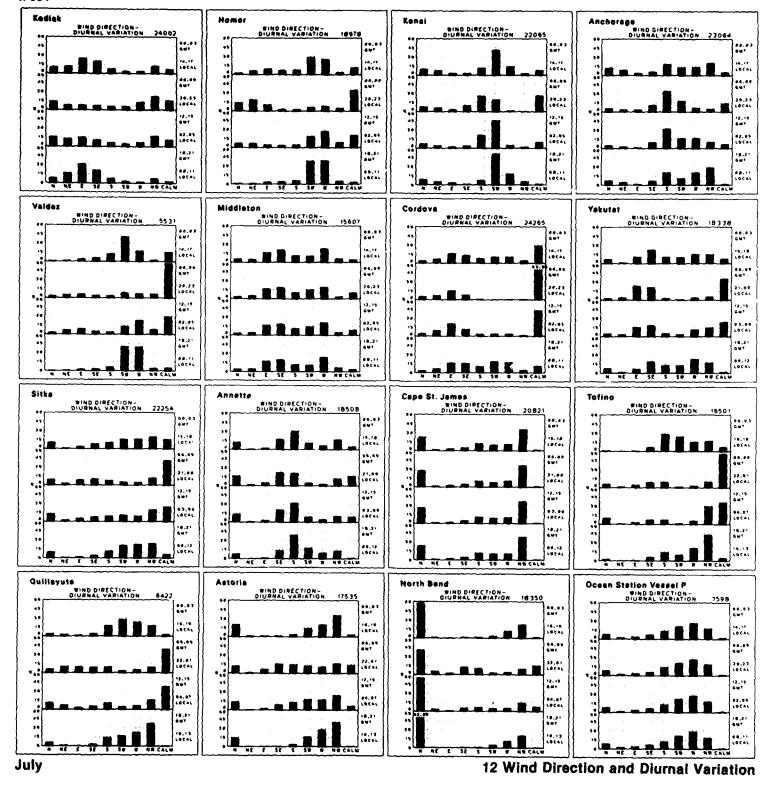
12 Wind Direction and Diurnal Variation

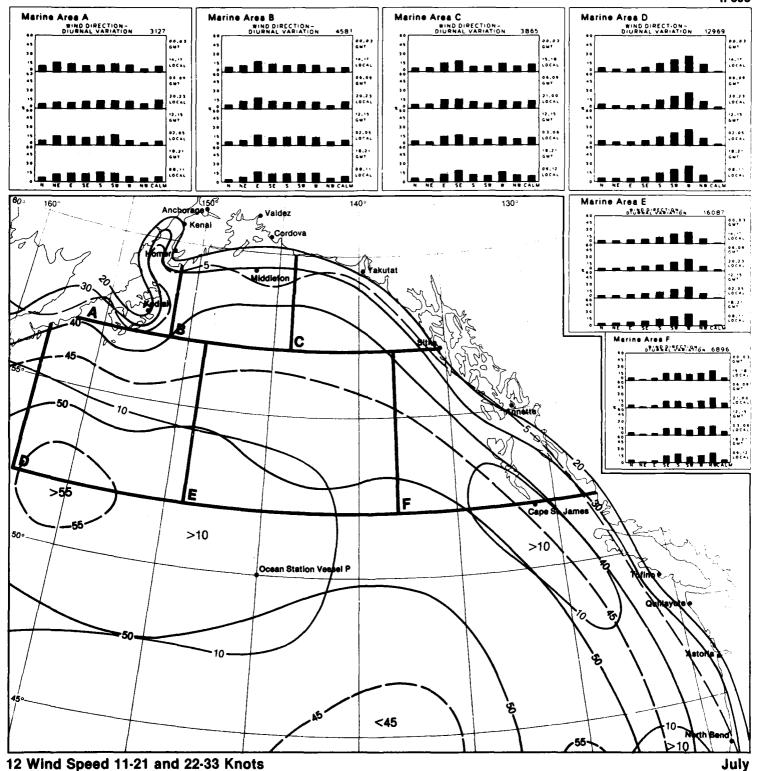


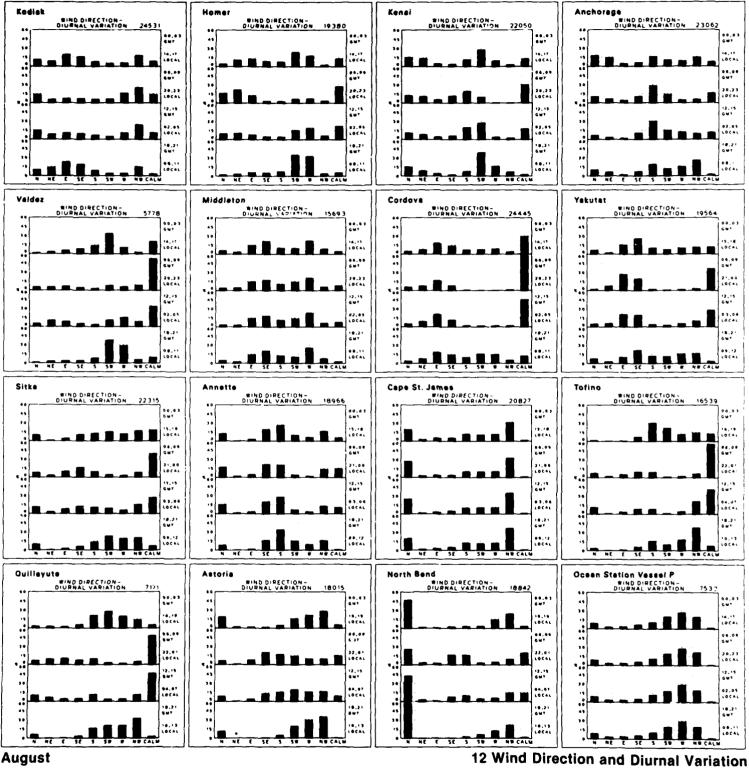
12 Wind Speed 11-21 and 22-33 Knots





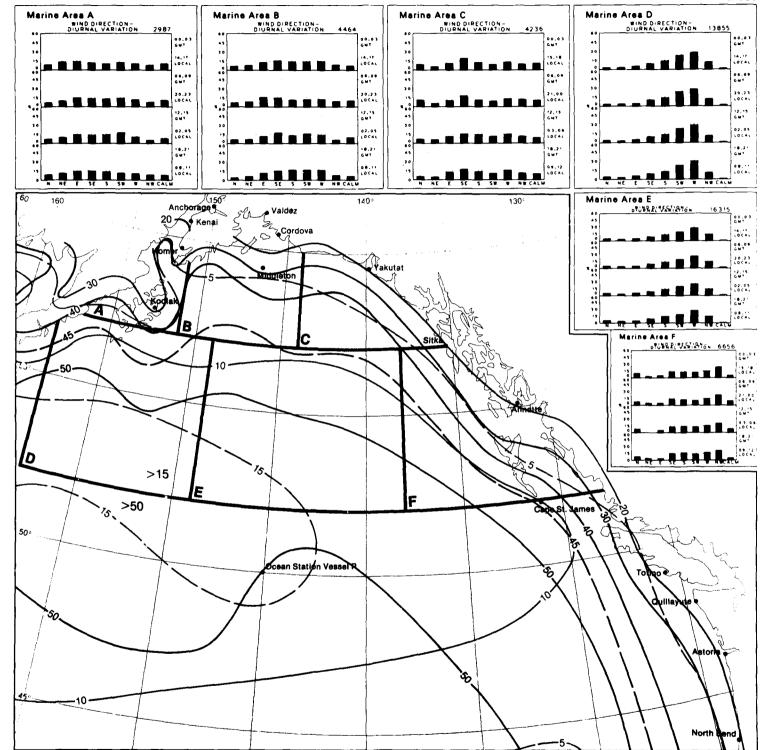




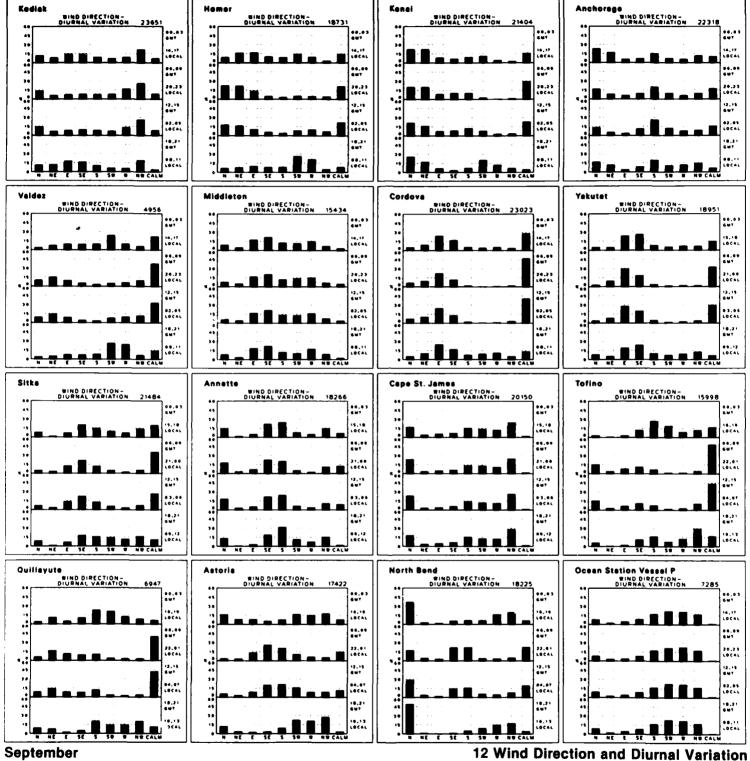


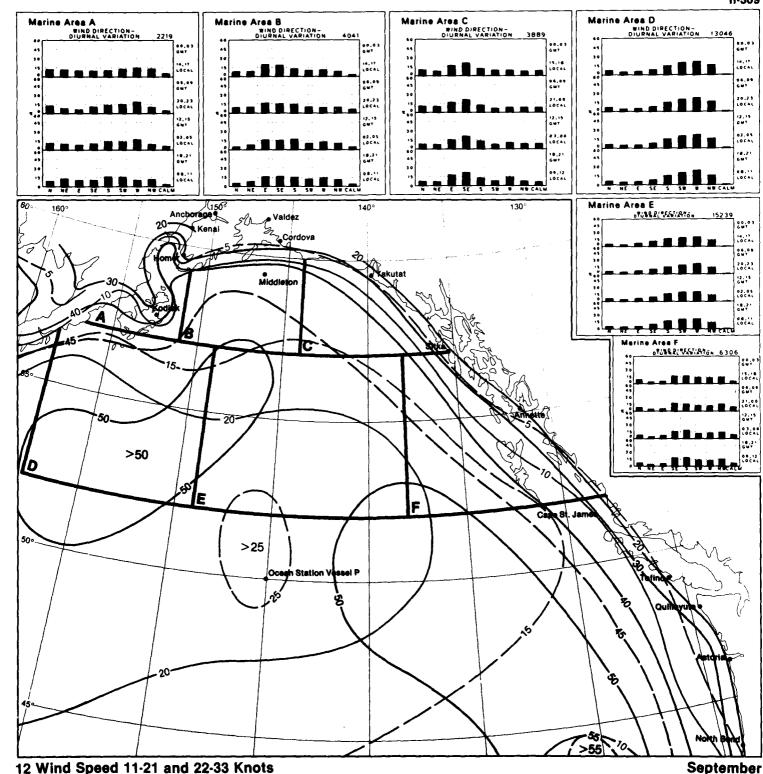
**August** 

**August** 



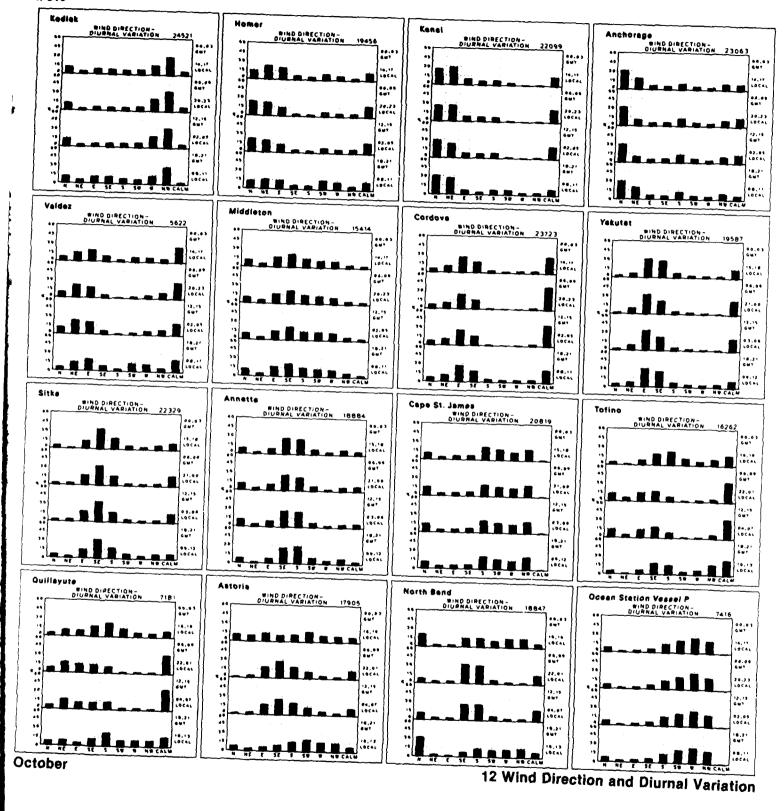
12 Wind Speed 11-21 and 22-33 Knots

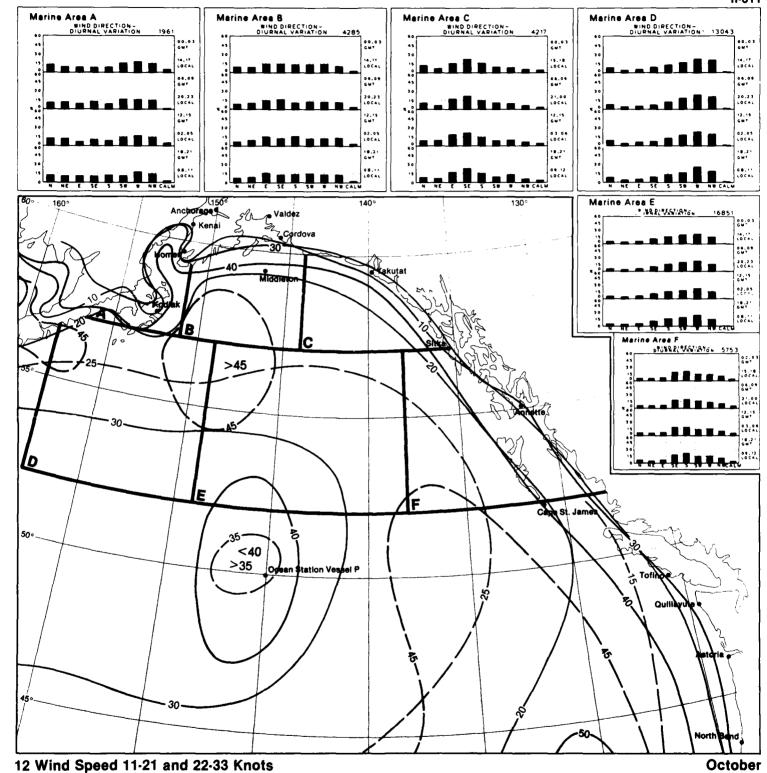


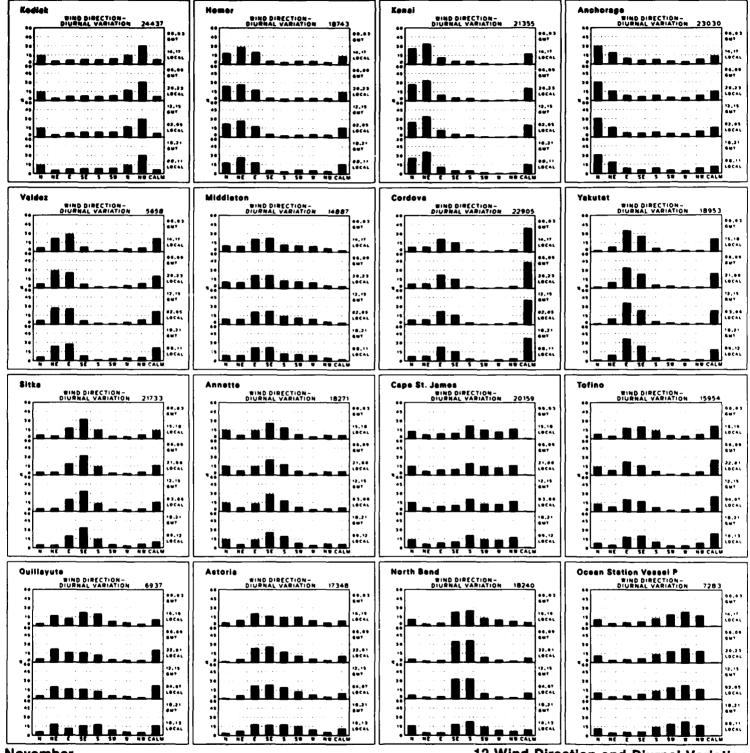


September



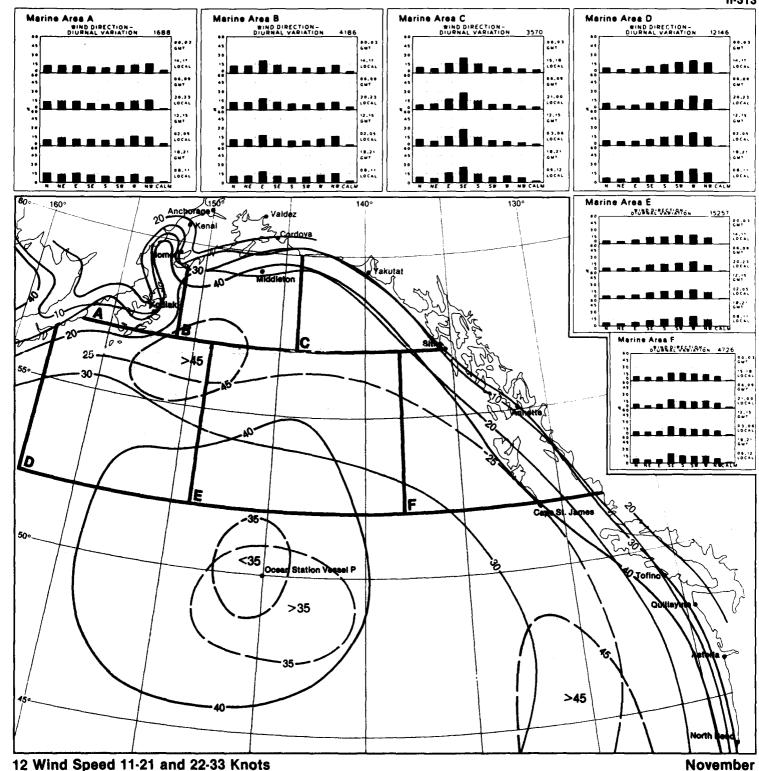


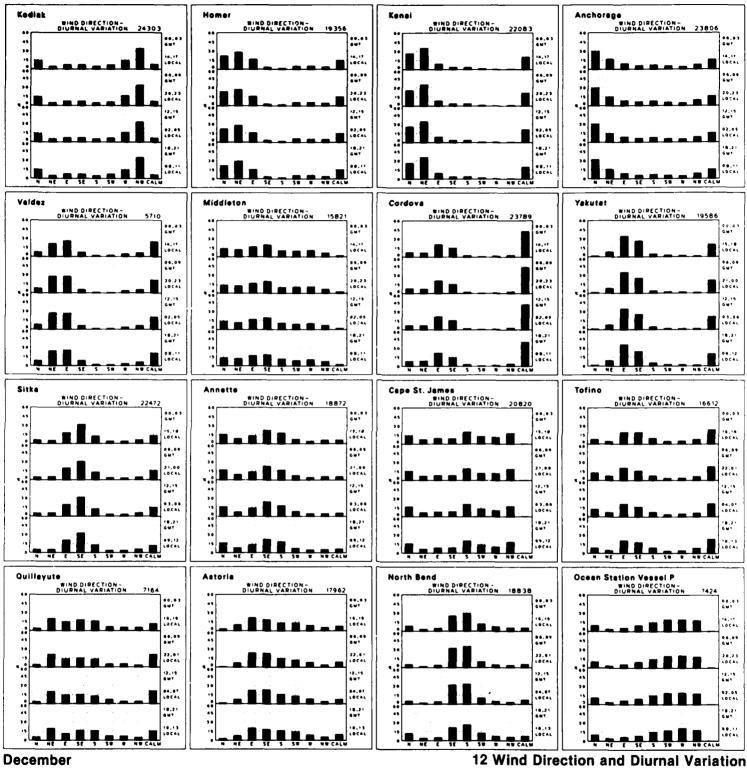


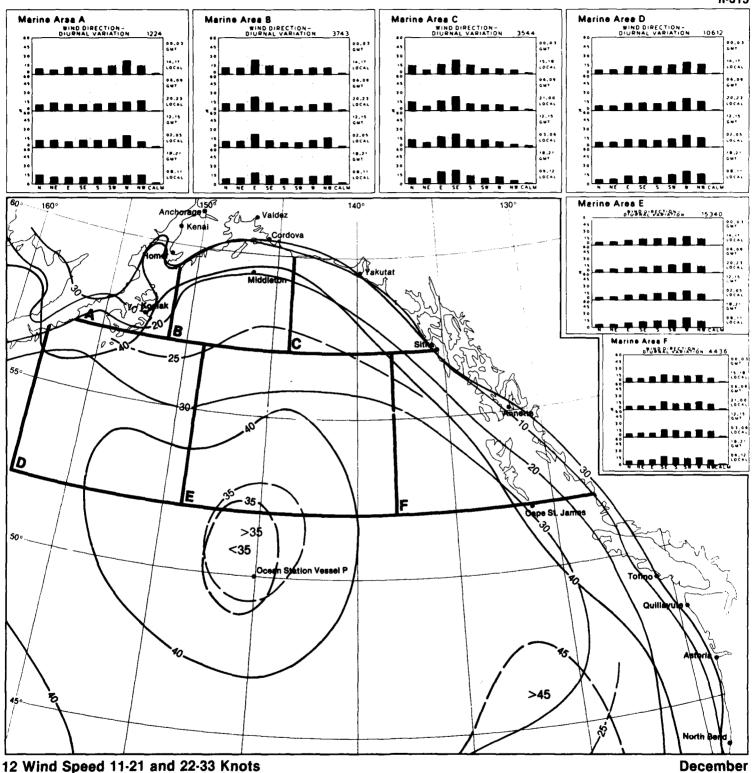


November

12 Wind Direction and Diurnal Variation







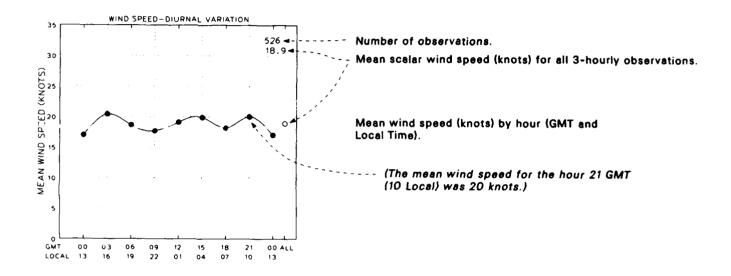
## Map 13. Scalar mean wind speed and wind chill temperature ≤-30°C

BLACK LINE - Mean scalar wind speed (knots).

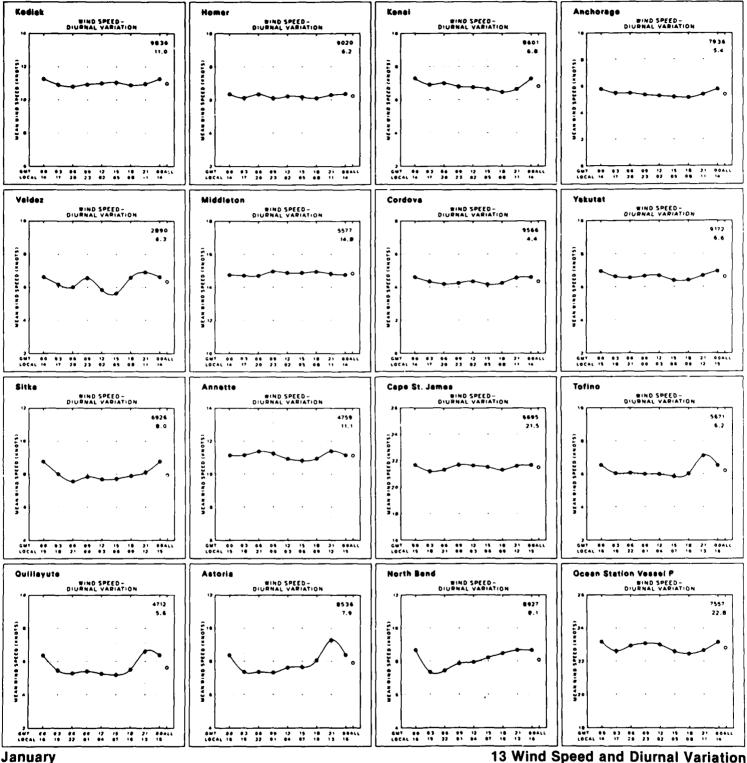
BLUE LINE - Percent frequency of wind chill temperature ≤-30°C (≤-22°F).

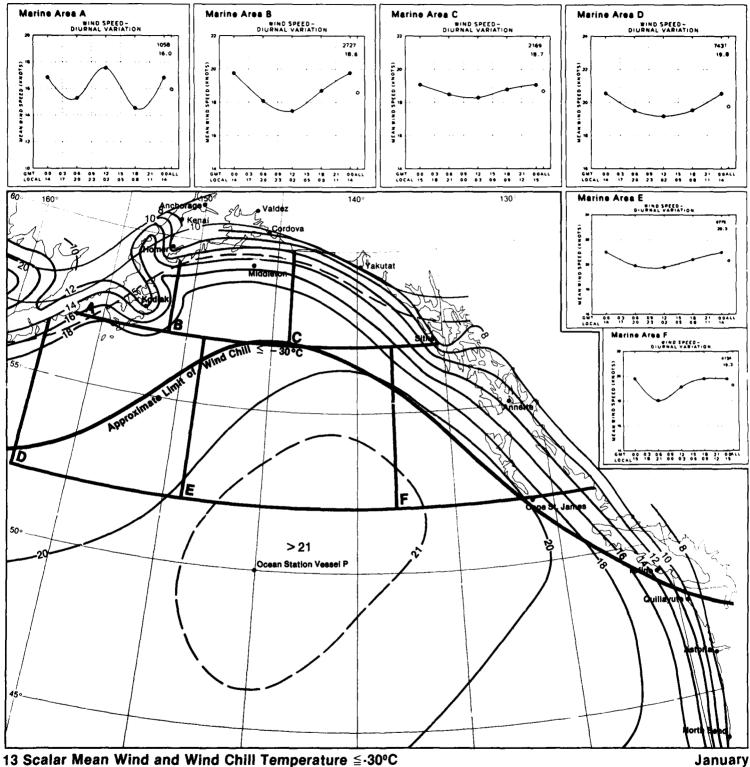
Albers Equal-Area Conic Projection

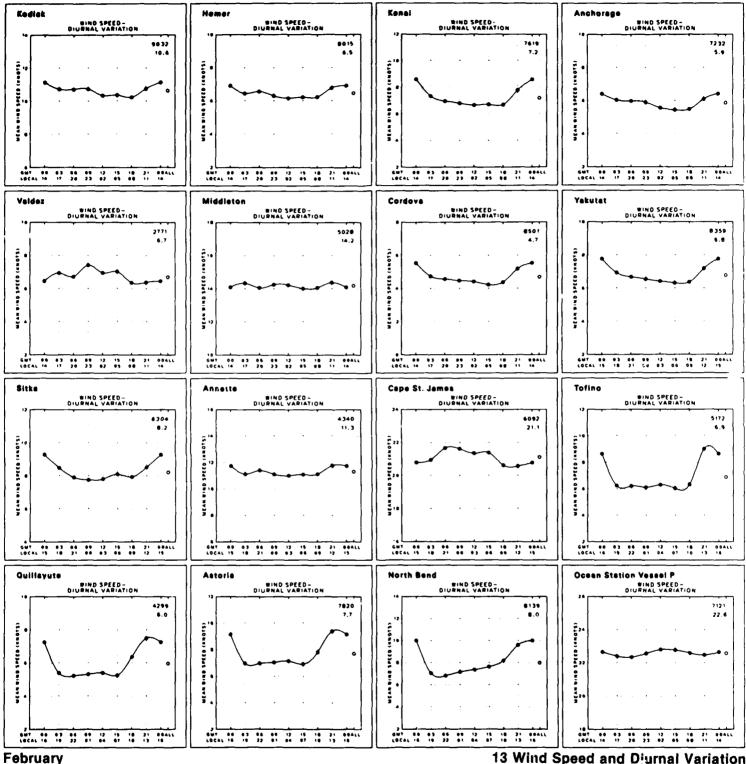
## Graphs: Wind speed/diurnal variation



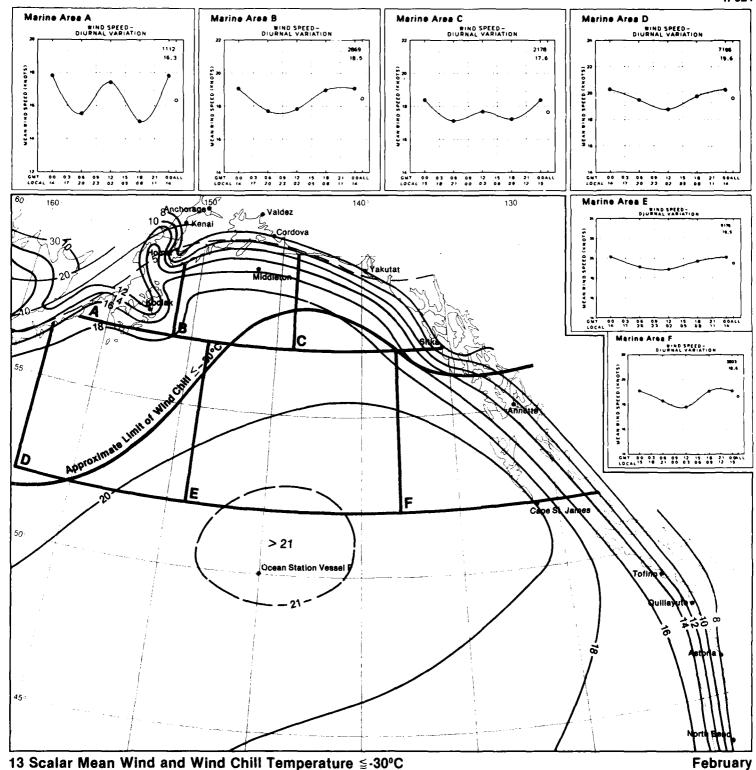
In areas of high persistence (also called constancy, steadiness) of direction, the magnitude of the vector mean wind (Set 10) should closely approach that of the scalar mean wind (set 13). As most of the marine observations are recorded at six-hour intervals (00, 06, 12, 18 GMT), intermediate hours (03, 09, 15, 21 GMT) were not plotted on the graphs for the marine areas. Intermediate hours were plotted for the stations, but users should use caution in interpreting plots for those few stations that reported less than eight observations per day—see the data inventory in the introductory text for Section II.



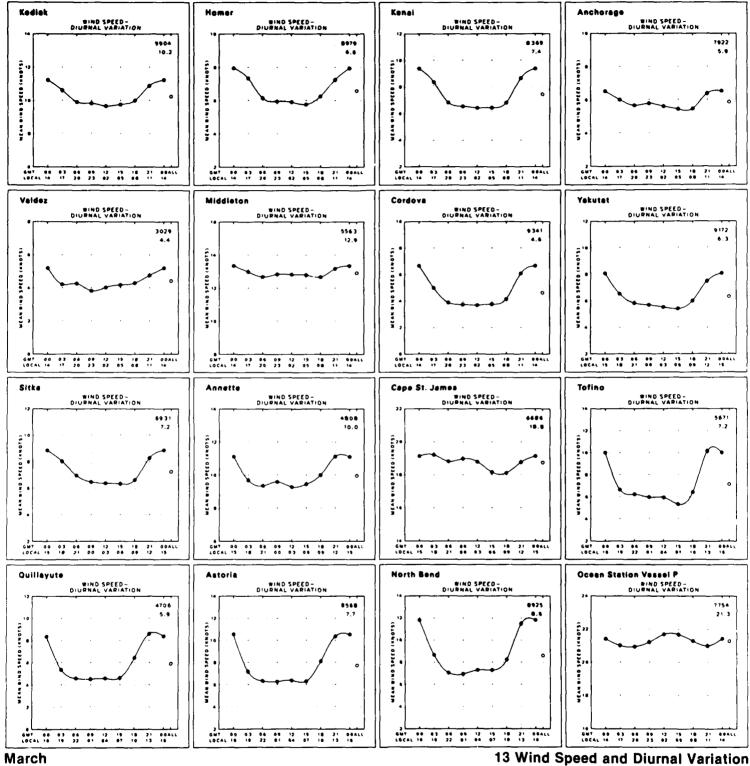


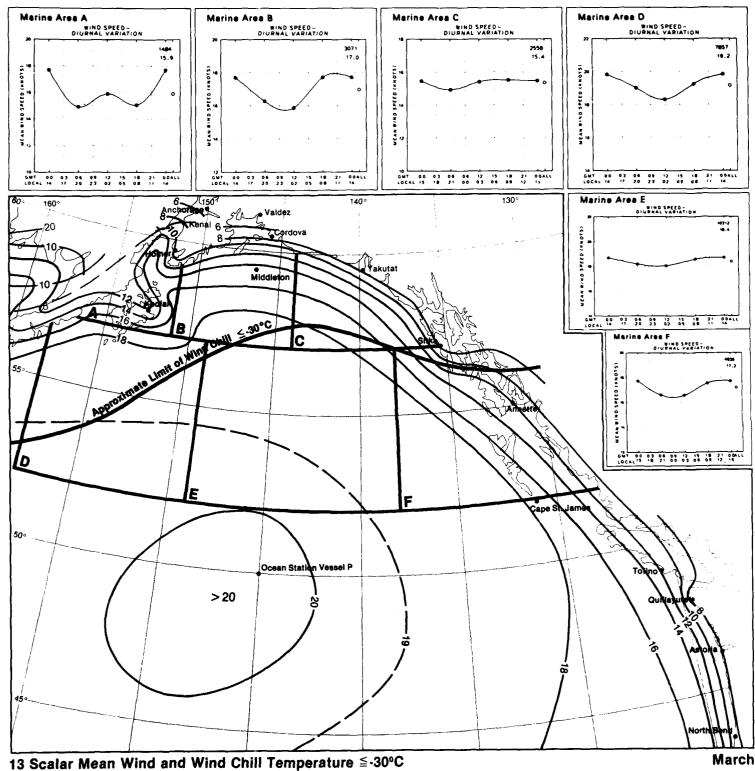


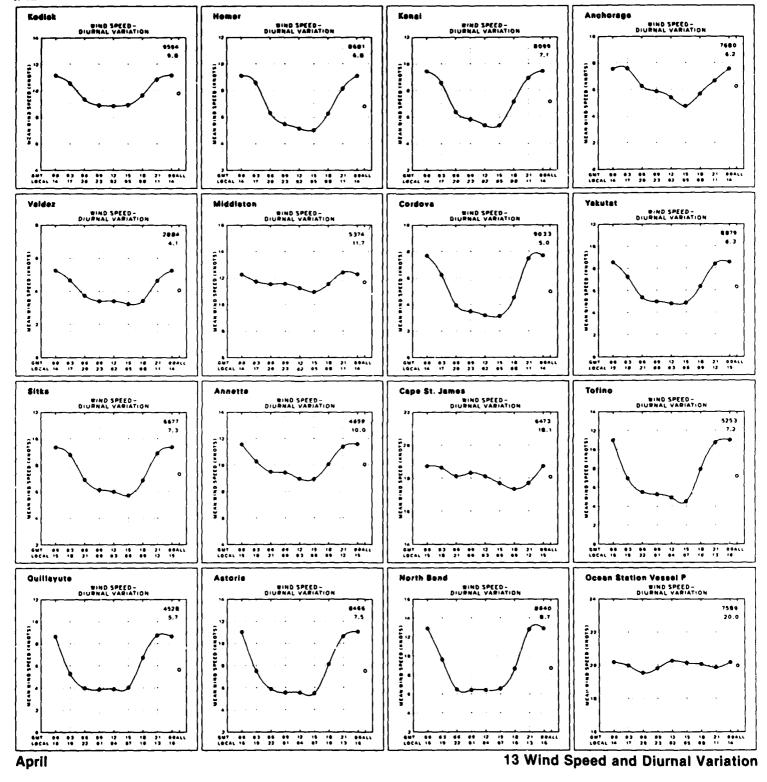
13 Wind Speed and Diurnal Variation

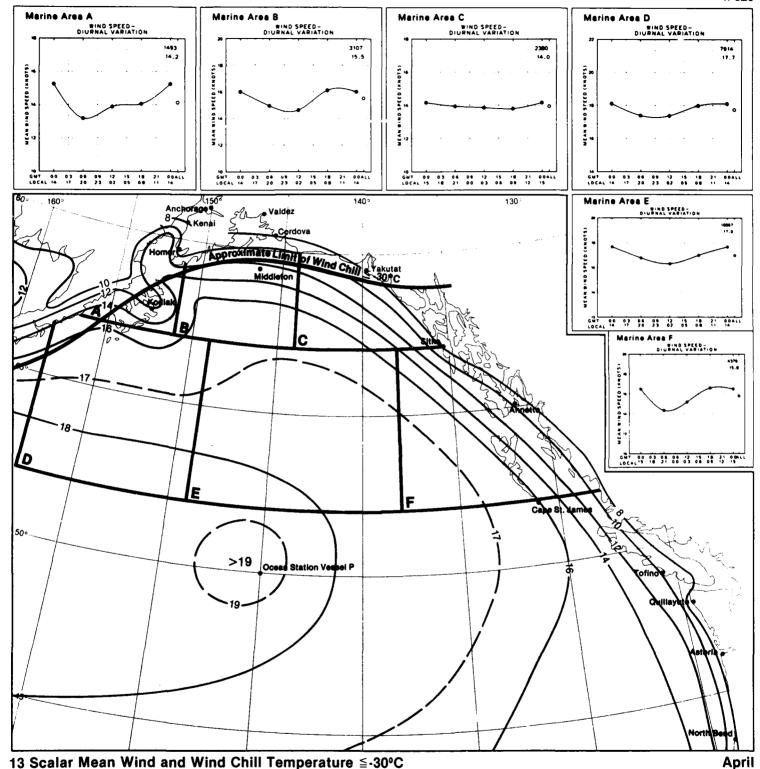


13 Scalar Mean Wind and Wind Chill Temperature ≨-30°C

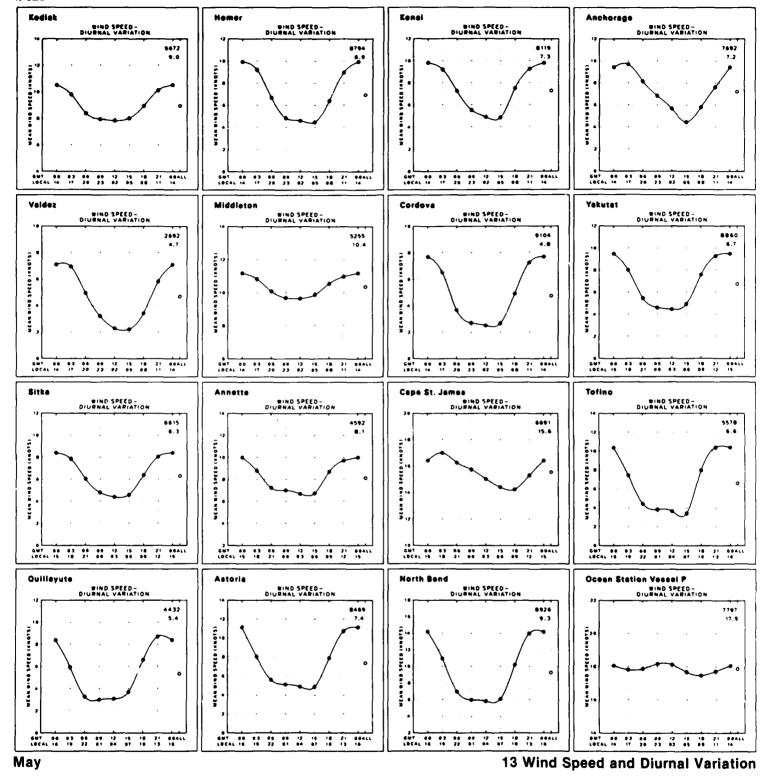


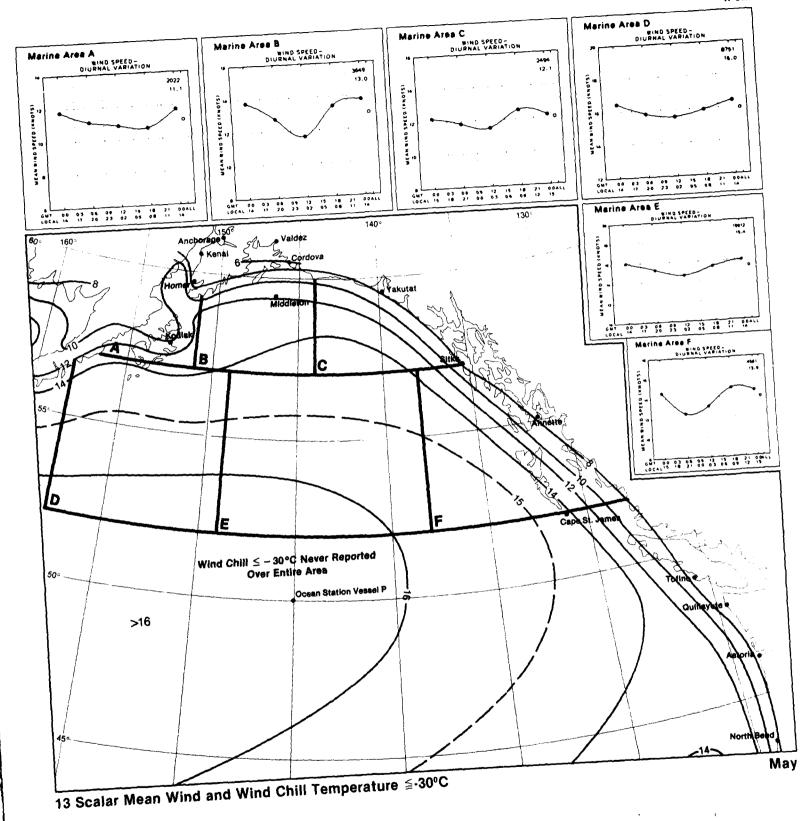


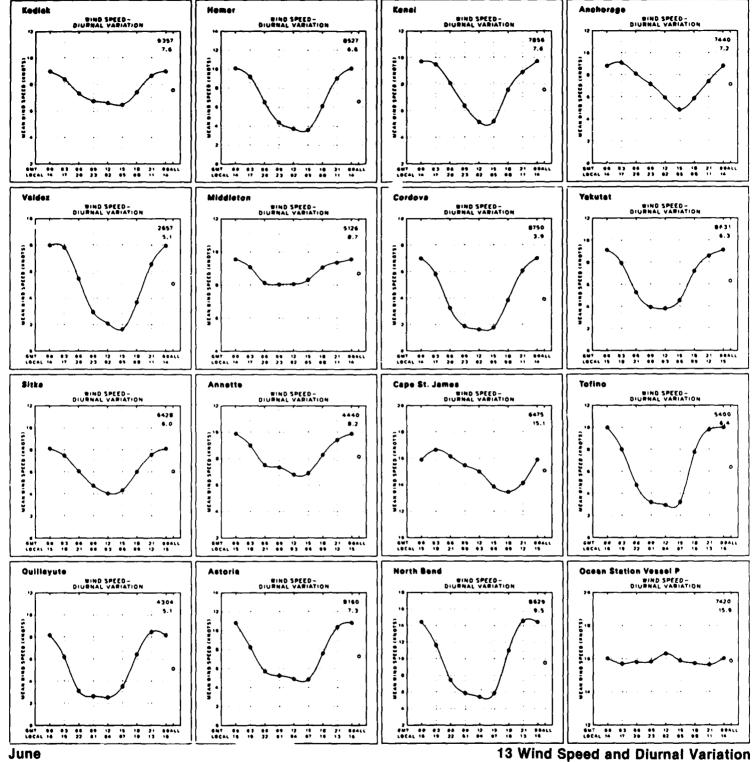


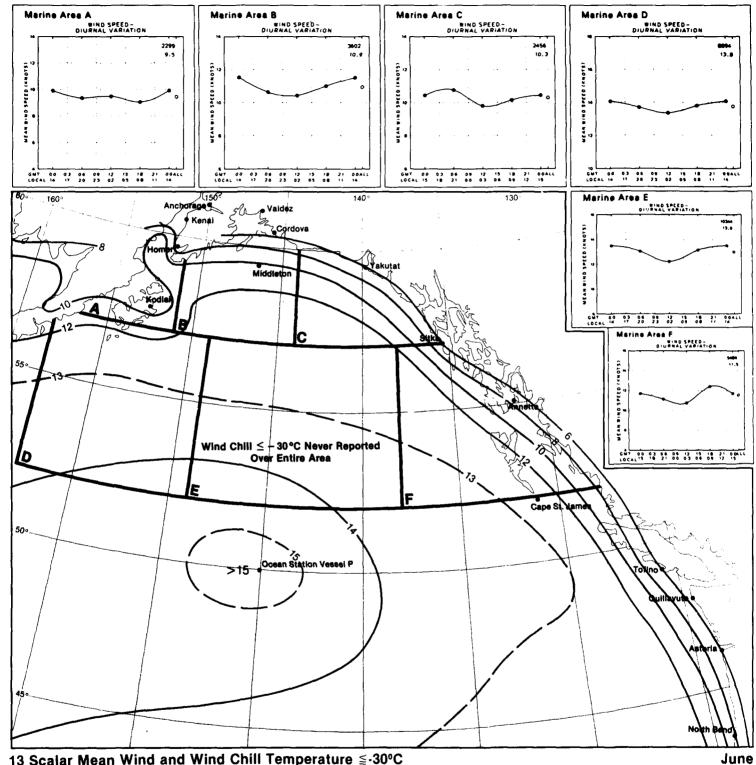


13 Scalar Mean Wind and Wind Chill Temperature ≦-30°C

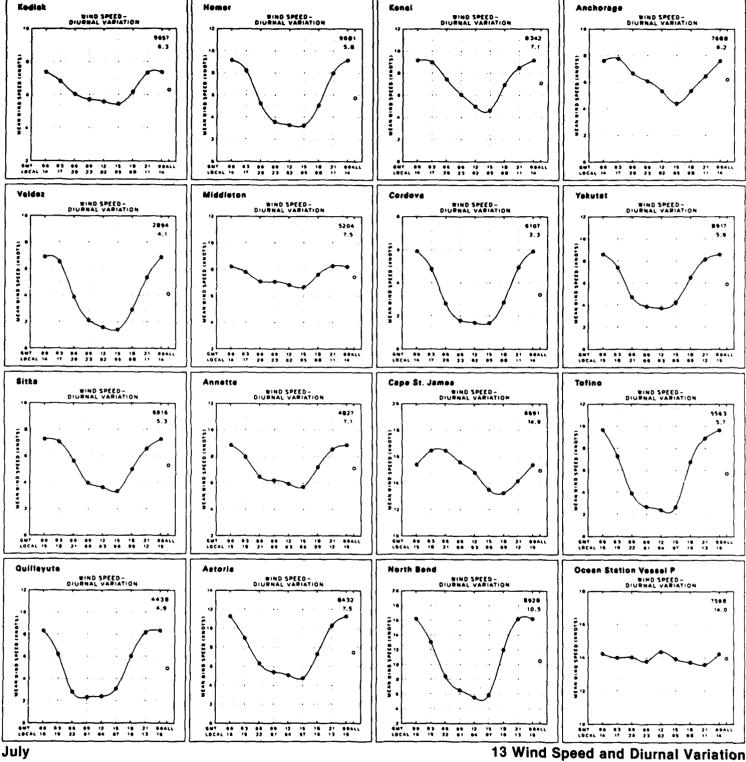


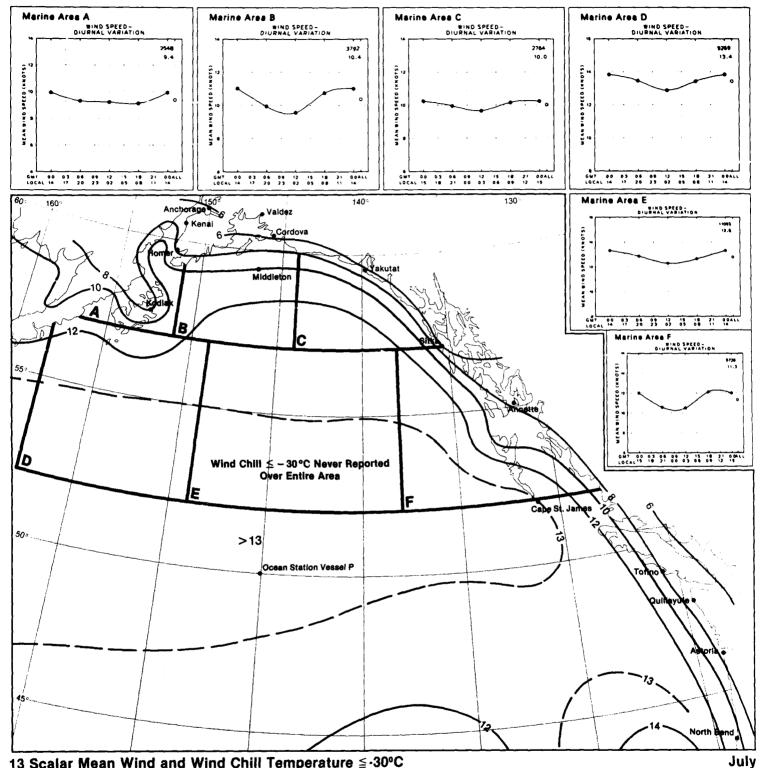




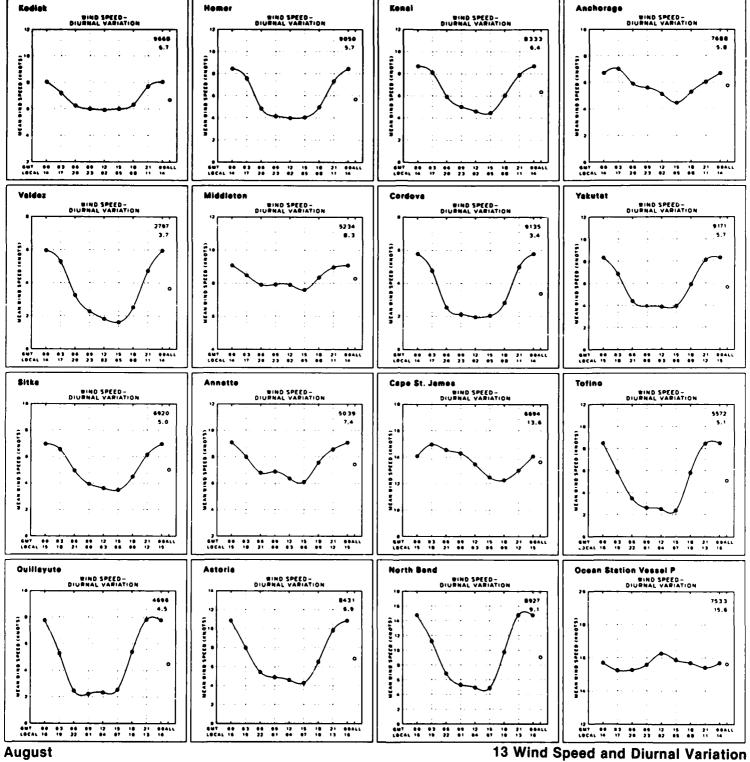


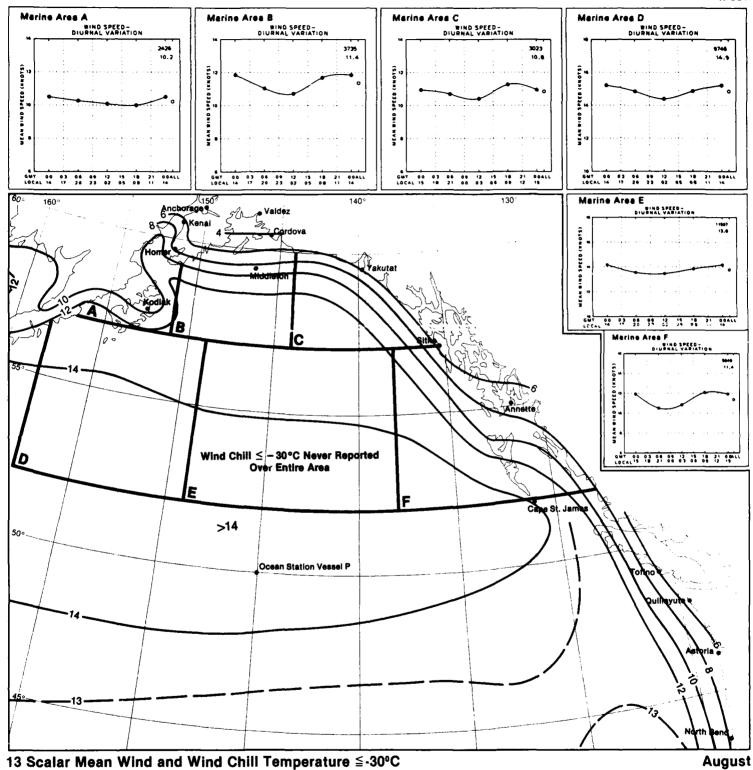
13 Scalar Mean Wind and Wind Chill Temperature ≦-30°C



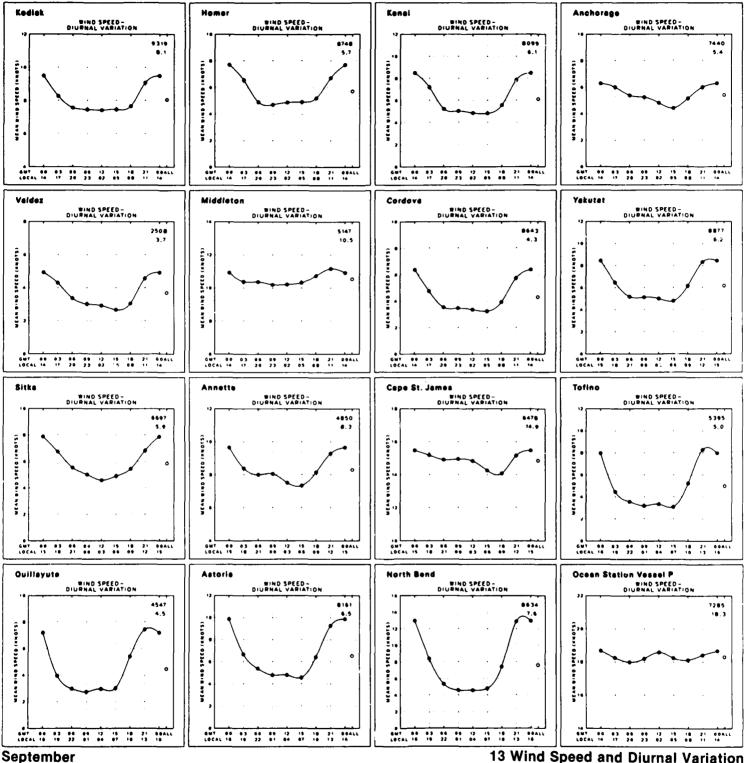


13 Scalar Mean Wind and Wind Chill Temperature ≤ -30°C

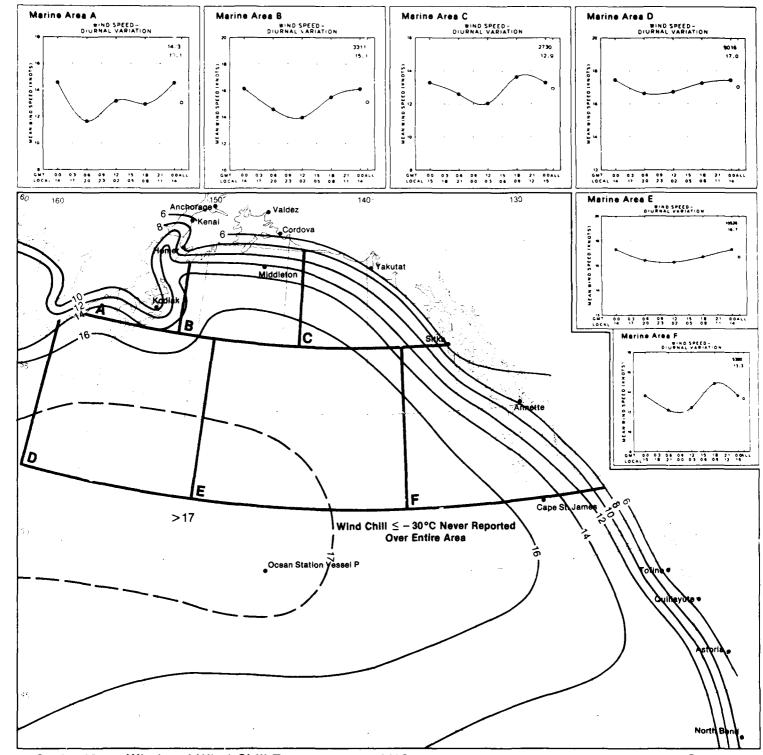




13 Scalar Mean Wind and Wind Chill Temperature ≤-30°C

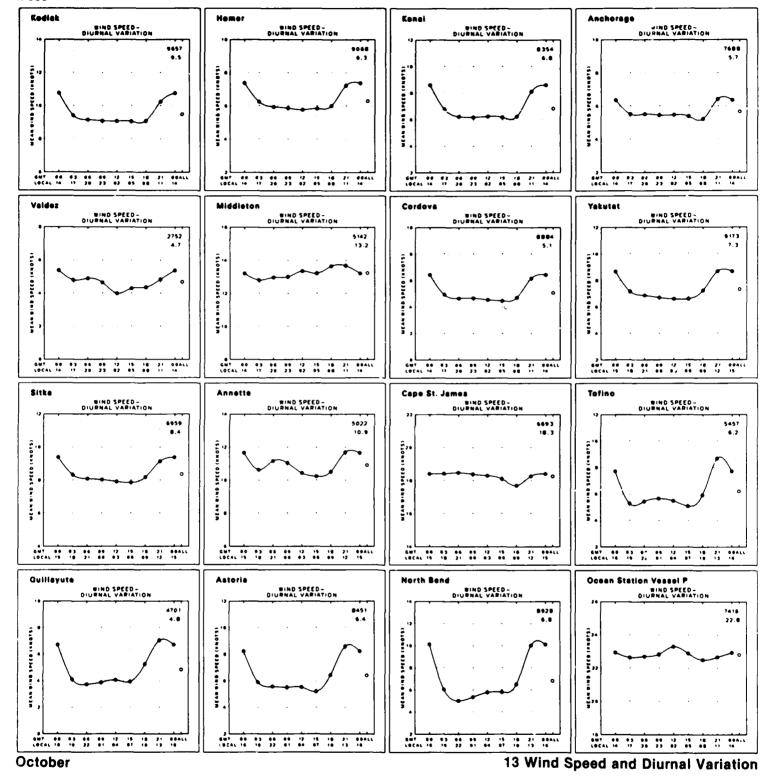


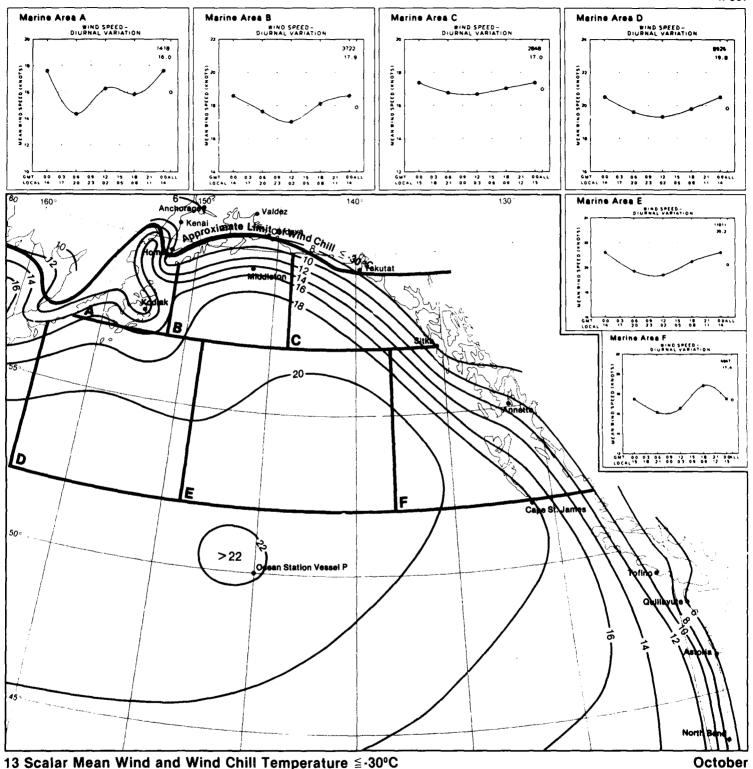
13 Wind Speed and Diurnal Variation



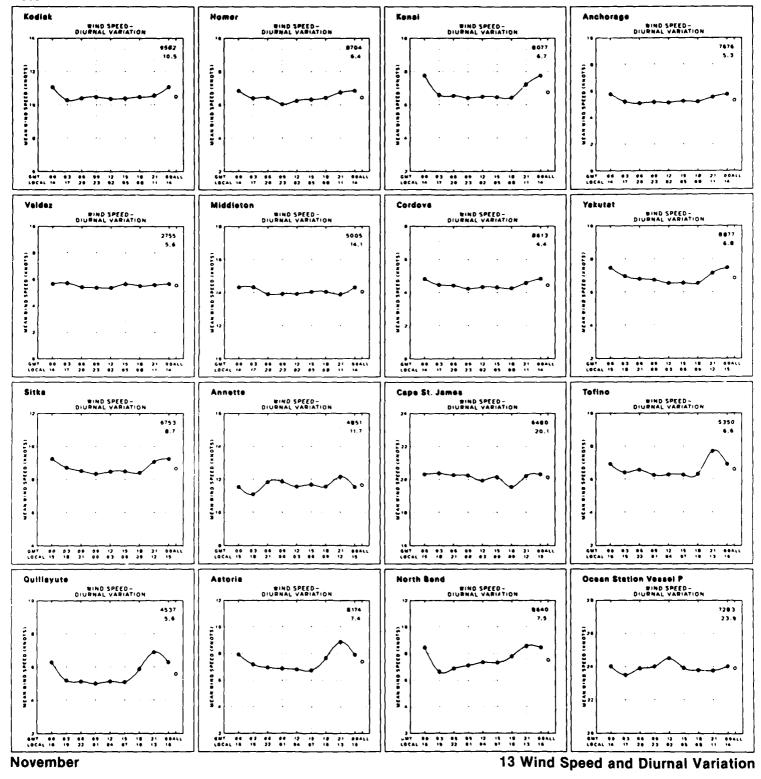
13 Scalar Mean Wind and Wind Chill Temperature ≦ ⋅30°C

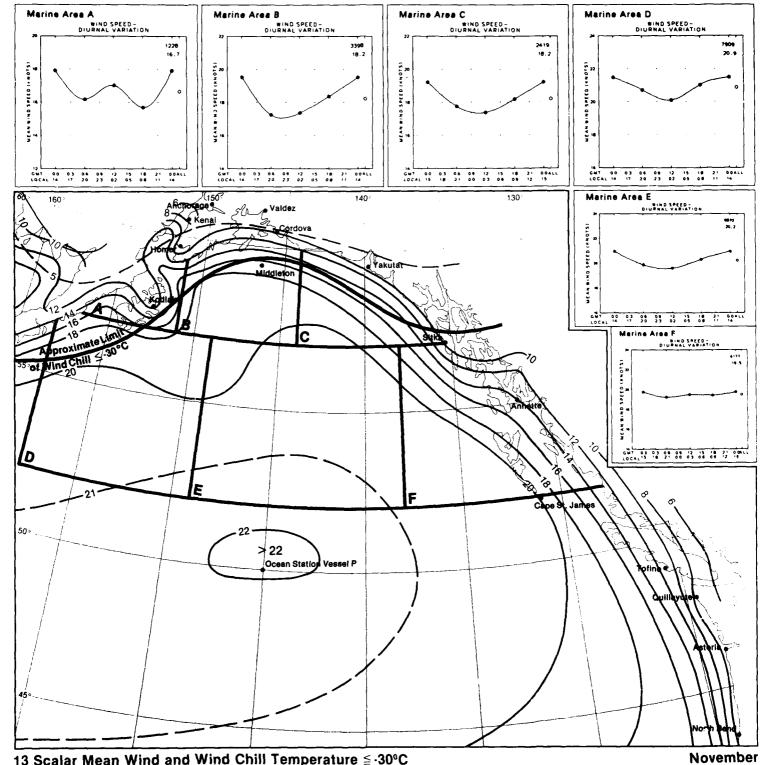
September



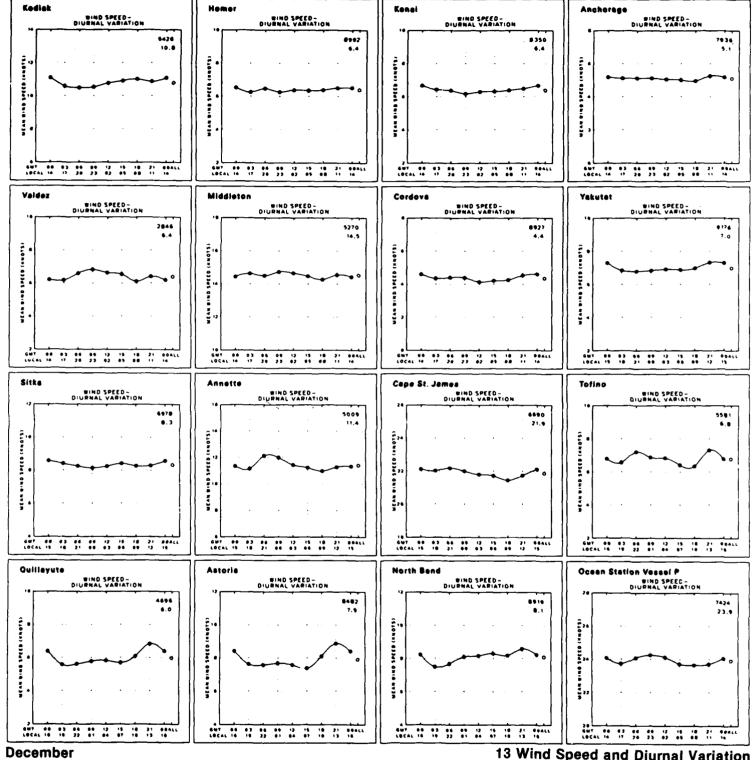


13 Scalar Mean Wind and Wind Chill Temperature ≤-30°C

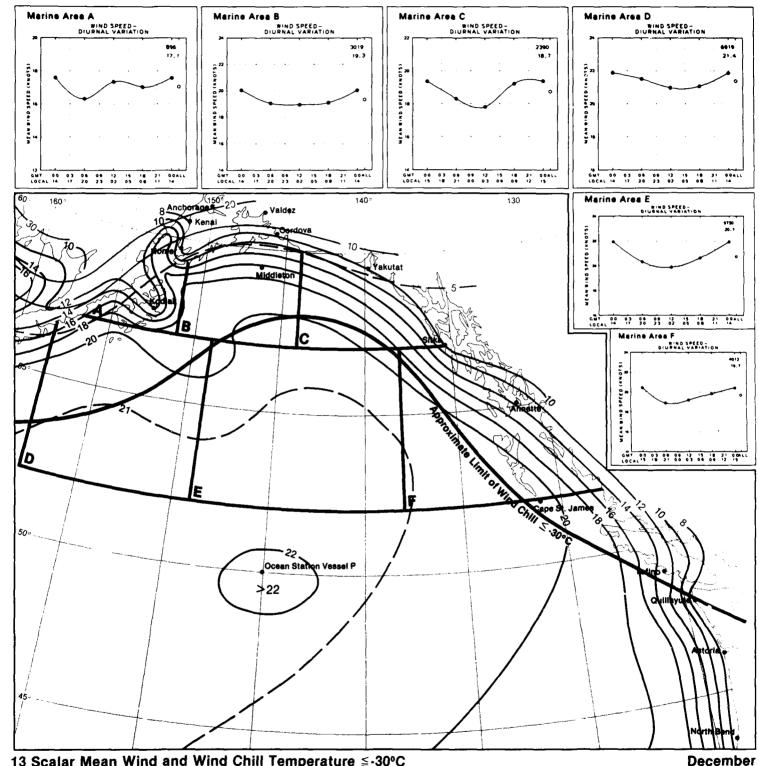




13 Scalar Mean Wind and Wind Chill Temperature ≦ ·30°C



13 Wind Speed and Diurnal Variation

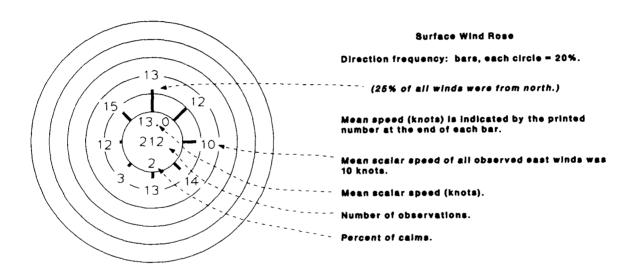


13 Scalar Mean Wind and Wind Chill Temperature ≦-30°C

# Map 14. Wind speed and direction

ROSE - Percent frequency of wind observations by direction (8-points).

Albers Equal-Area Conic Projection



Wind is measured in terms of velocity, a vector that gives both wind speed and direction. *True wind* is the wind that is experienced by an observer standing still. When the ship is moving, an observer experiences what is termed an *apparent wind*. The speed and course of the ship must be eliminated from the apparent wind to obtain the true wind, which is needed for meteorological purposes. Wind estimated from the appearance of the sea surface is a true wind, while wind determined by the appearance of the ship's rigging or by a shipboard anemometer is an apparent wind. True wind direction may be estimated by observing the direction from which ripples, small waves, and sea spray are coming, since they run with the wind. The direction from which the waves are coming is most easily found by sighting along the wave crests and then turning 90° to face the advancing waves. The observer is then facing the direction from which the waves are coming. The direction is determined to the nearest 10° with respect to true north. The true wind speed is the average speed of the wind blowing near the sea surface. Information in the following table is used to estimate the true wind speed based upon the condition of the sea surface. Refer to the text in Set 11 for additional descriptive information on winds.

14 Legend Legend 14

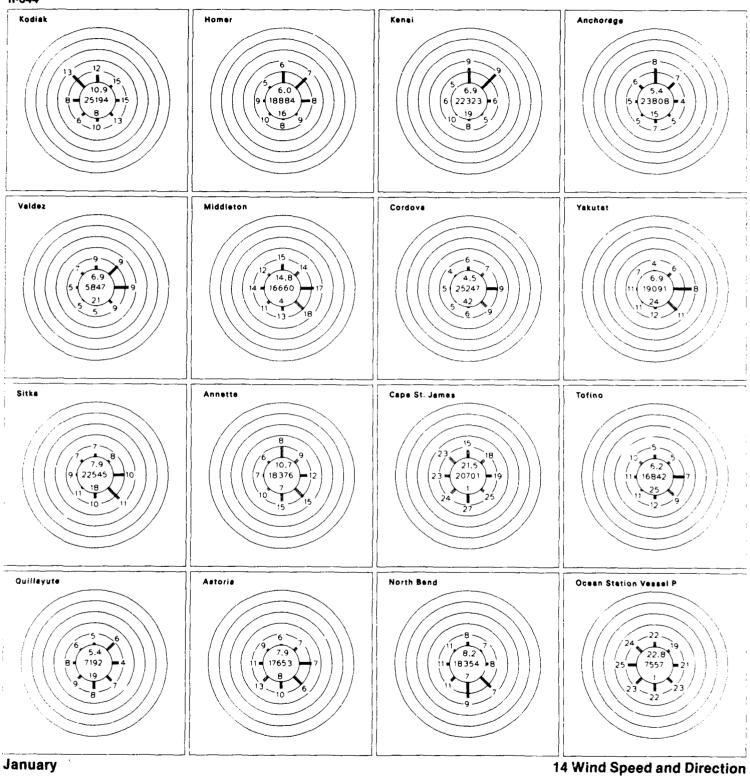
# WIND SPEED IN KNOTS (WMO Code, 1982)

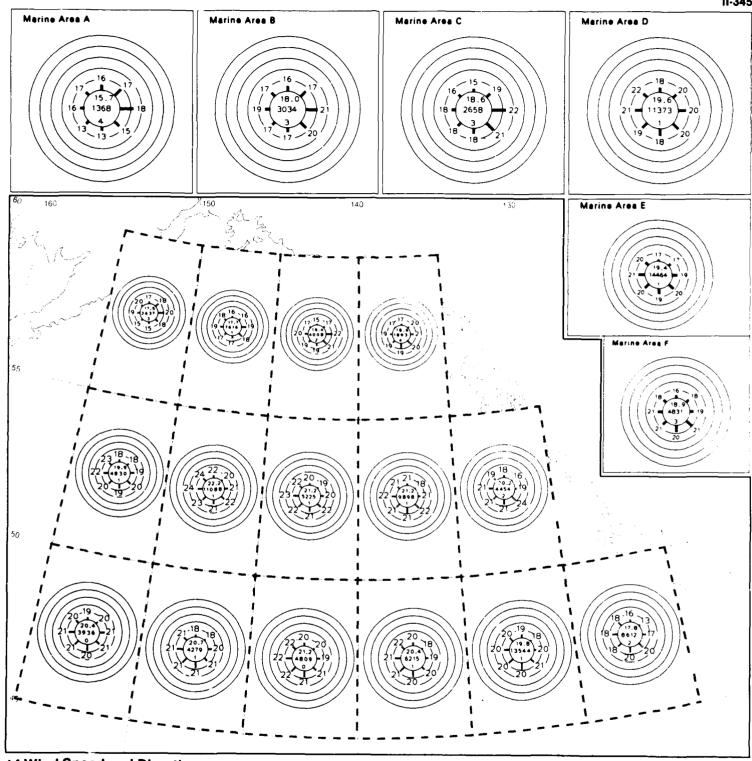
This table is based on sea conditions over deep water with a fully developed sea. There will be frequent cases where the sea will not be fully developed bacause the wind has not blown long enough over a sufficient distance (fetch). Other factors such as currents and water depth will also affect the look of the sea.

Code figs. (Knots)	Beaufort	Description	Sea criterion when sea fully developed	Probable ht. of waves in m (ft)			
				Average		Maximum	
00	0	Calm	Sea like a mirror	-			-
01-03	1	Light air	Ripples with the appearance of scales are formed, but without foam crests	0.1	(14)	0 1	(14)
04-06	2	Light breeze	Small wavelets, still short but more pronounced, crests have a glassy appearance and do not break	0 2	(*21	0 3	(1)
07-10	3	Gentle breeze	Large wavelets; crests begin to break, foam of glassy appearance, perhaps scattered white horses	0.6	(2)	1	(3)
11-16	4	Moderate breeze	Small waves, becoming longer; fairly frequent white horses	1	(312)	15	ı5·
17-21	5	Fresh breeze	Moderate waves, taking a more pronounced long form, many white horses are formed (chance of some spray)	2	(6)	2 5	·8*
22-27	6	Strong breeze	Large waves begin to form, white foam crests are more extensive everywhere (probably some spray)	3	(9 %)	4	.13,
28-33	7	Near gale	Sea heaps up and white foam from breaking waves begins to be blown in streaks along the direction of the wind	4	(1317)	5 5	, 19.
34-40	8	Gale	Moderately high waves of greater length: edges of crests begin to break into the spindrift, the foam is blown in well-marked streaks along the direction of the wind	5 5	(18:	7.5	(2fa
41-47	g	Strong gale	High waves, dense streaks of foam along the direction of the wind, crests of waves begin to topple, tumble and roll over: Spray may affect visibility	7	-23	<b>1</b> 0	.32
48-55	10	Storm	Very high waves with long overhanging crests, the resulting foam, in great patches, is blown in dense white streaks along the direction of the wind, on the whole, the surface of the sea takes on a white appearance, tumbling of the sea hecomes heavy and shock-like visibility affected.	9	. <b>2</b> 91	• jo 6,	<b>4</b> +.
58-63	11	Violent Storm	Exceptionally high waves ismall and medium-sized ships might be for a time lost to view behind the waves, the sea is completely covered with long white patches of foam lying along the direction of the wind, everywhere the edges of the wave crests are blown into froth visibility affected.	115	(37)	tro	-52
64 and over	12	Hurricane	The air is filled with foam and spray, sea completely white with driving spray, visibility very seriously affected	14	(45)	-	хх

Note: For winds over 99 knots, add 50 to dd (direction) and enter the tens and units digits of the wind speed for ff: e.g. for a wind from  $100^{\circ}$  true at 125 knots, dd = 60, and ff = 25.

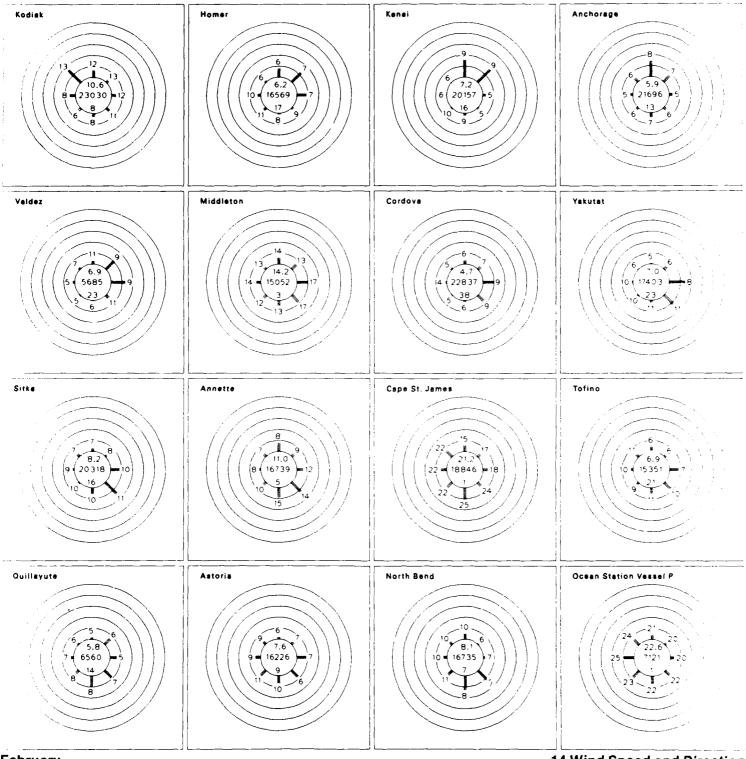
14 Legend





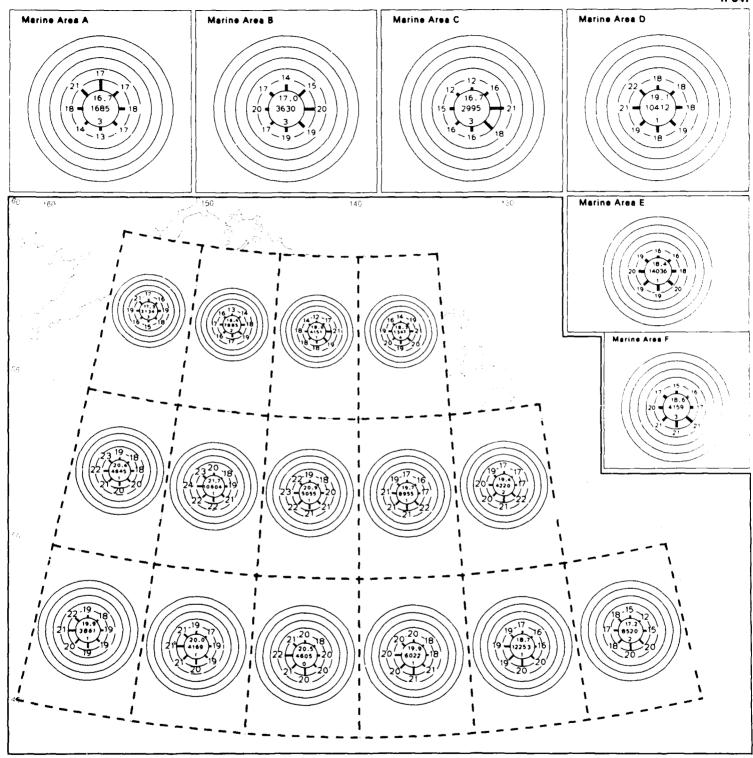
14 Wind Speed and Direction

January



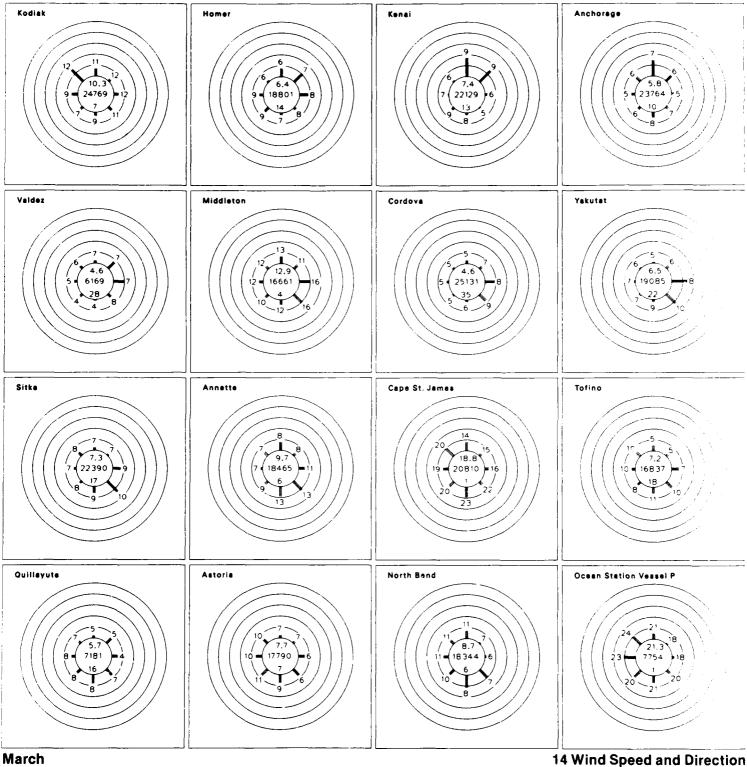
**February** 

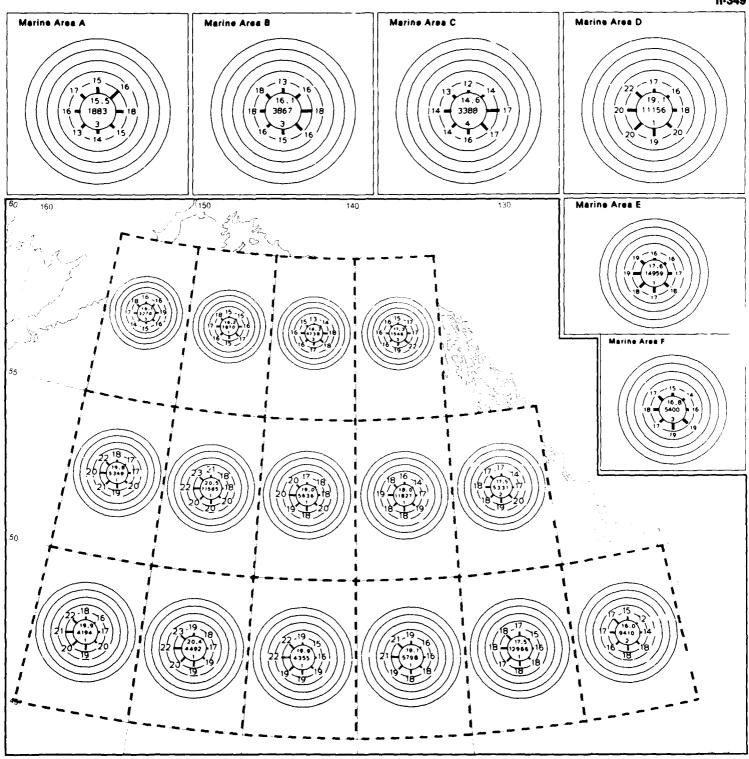
14 Wind Speed and Direction



14 Wind Speed and Direction

**February** 



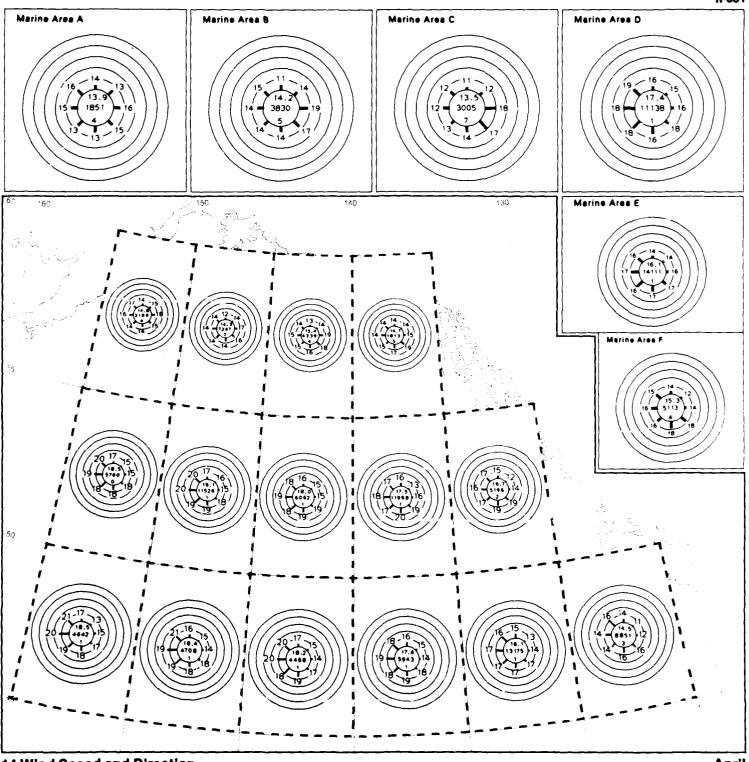


14 Wind Speed and Direction

March

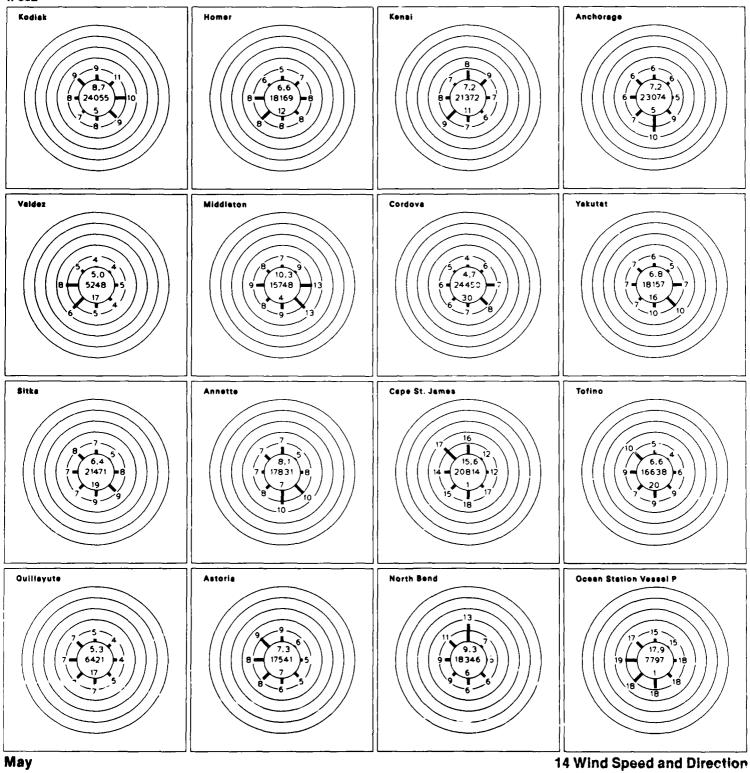
April

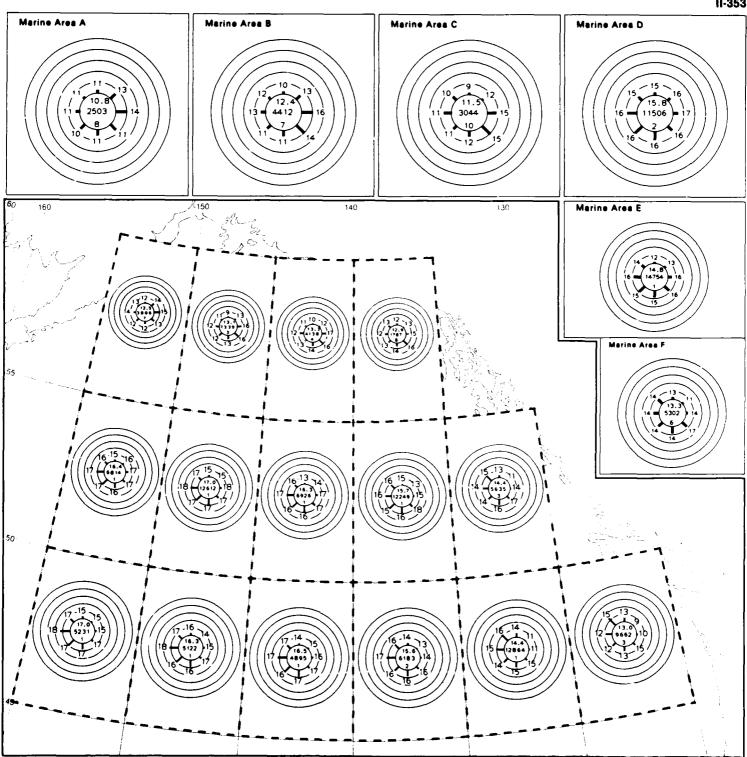
14 Wind Speed and Direction



14 Wind Speed and Direction

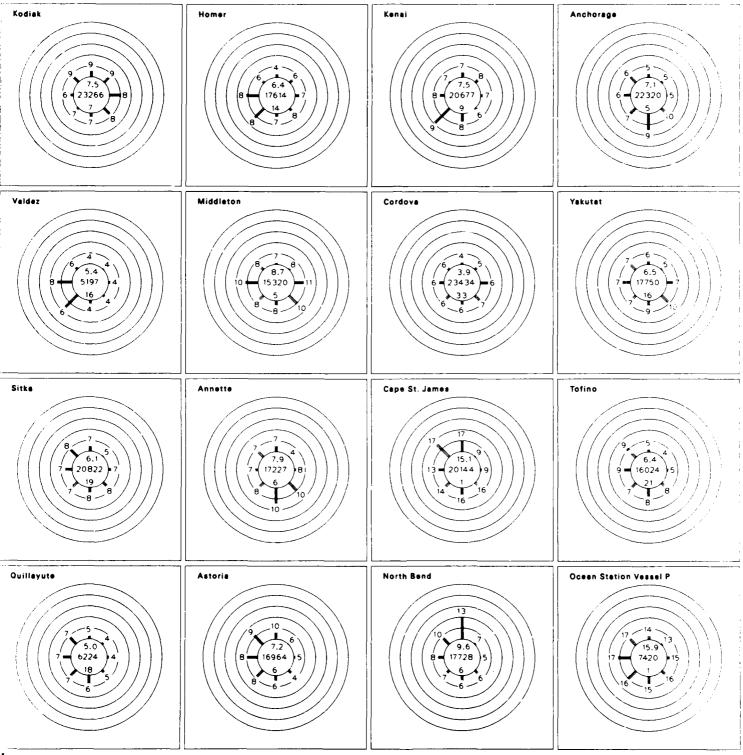
April





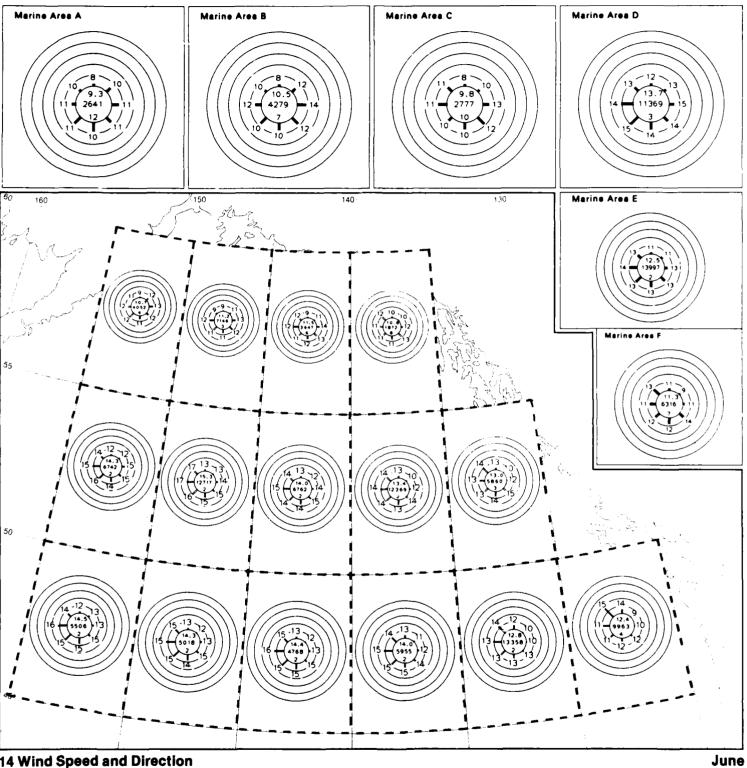
14 Wind Speed and Direction

May

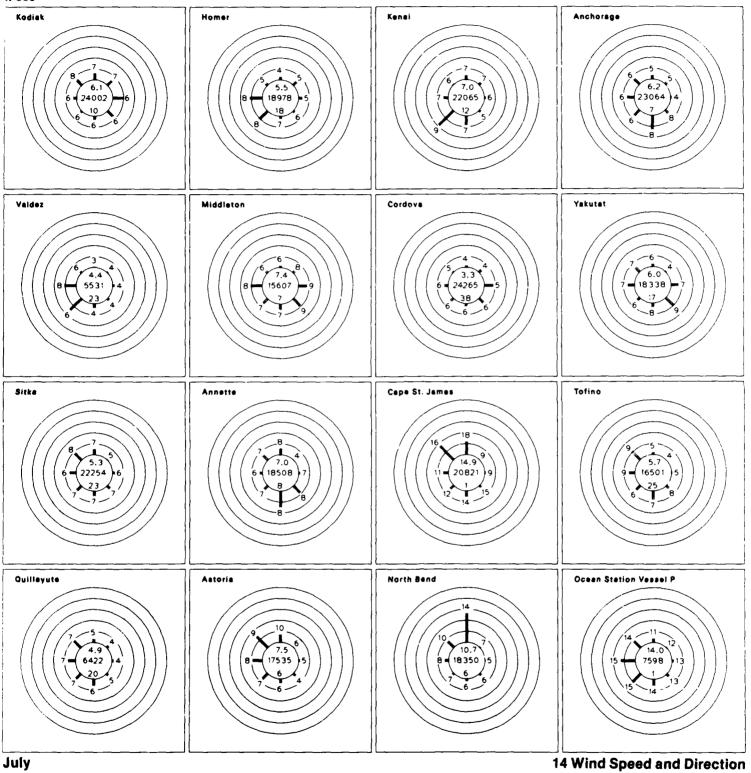


June

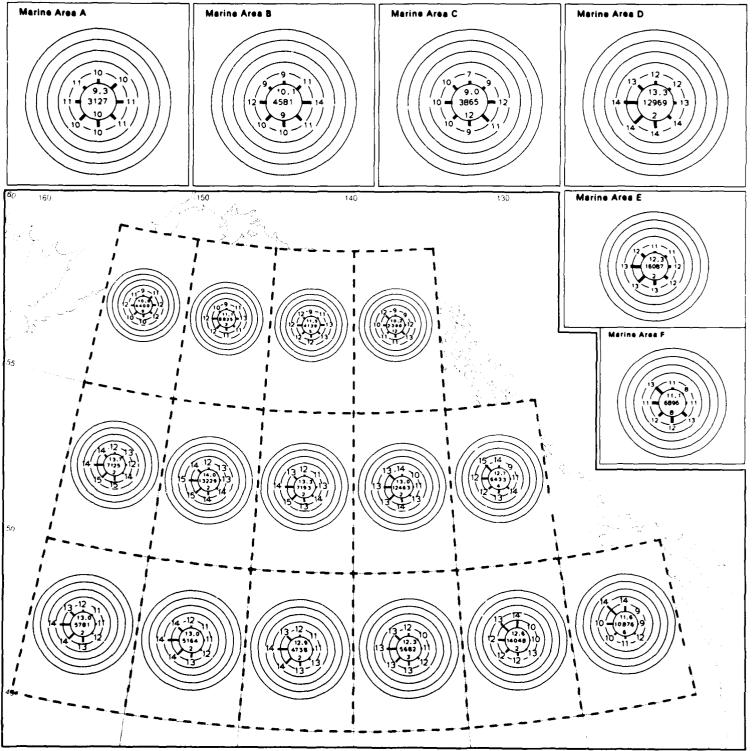
14 Wind Speed and Direction



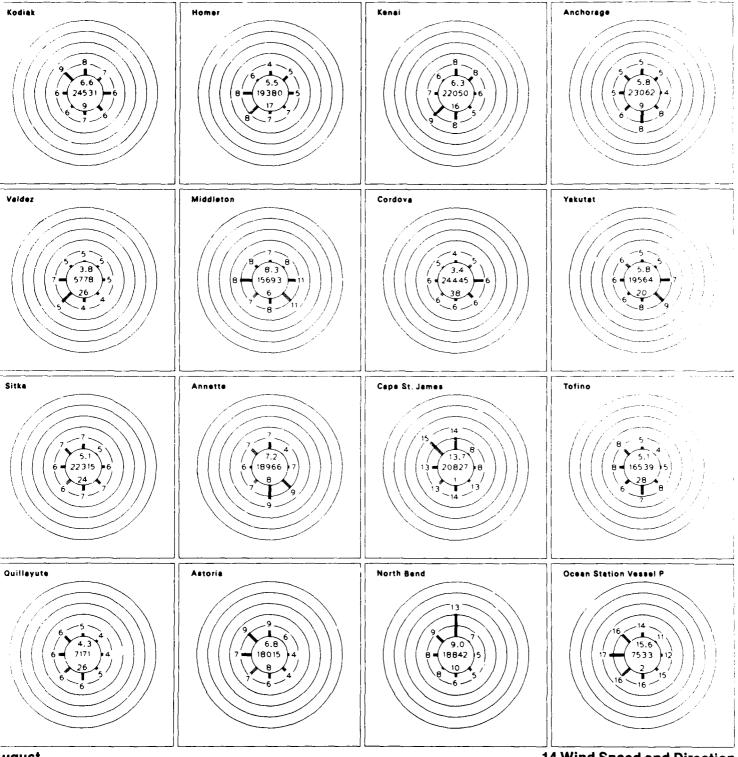
14 Wind Speed and Direction



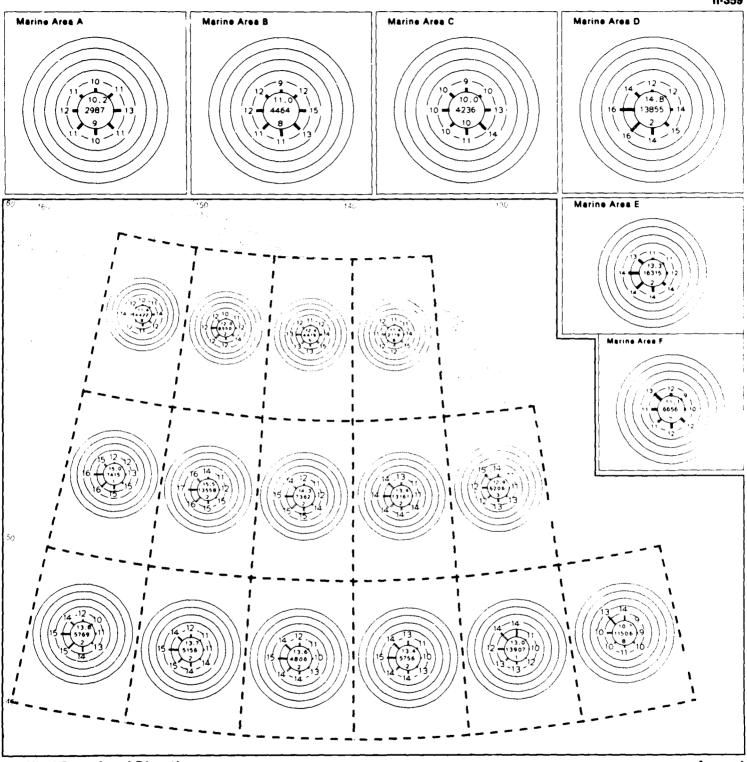
July



14 Wind Speed and Direction

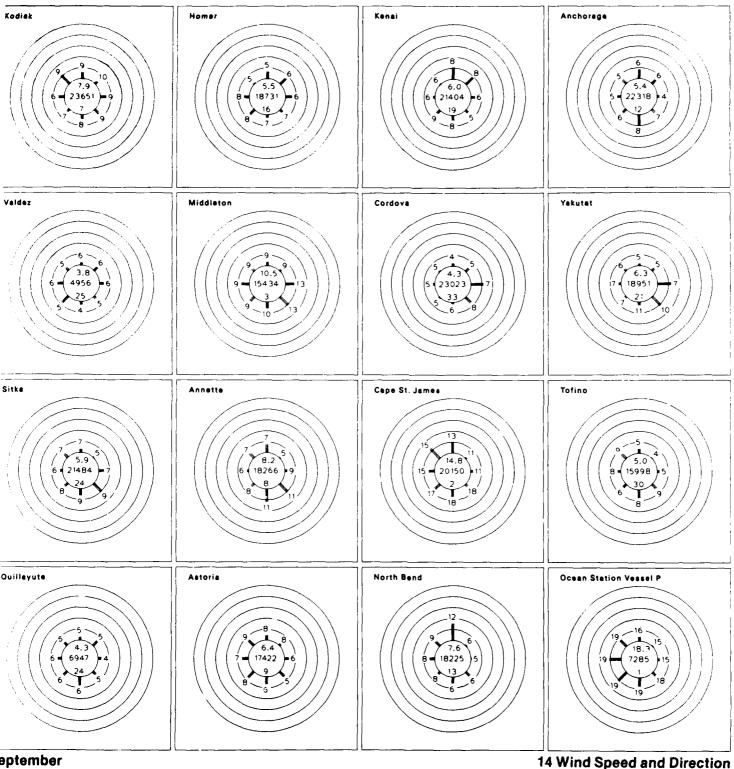


14 Wind Speed and Direction August

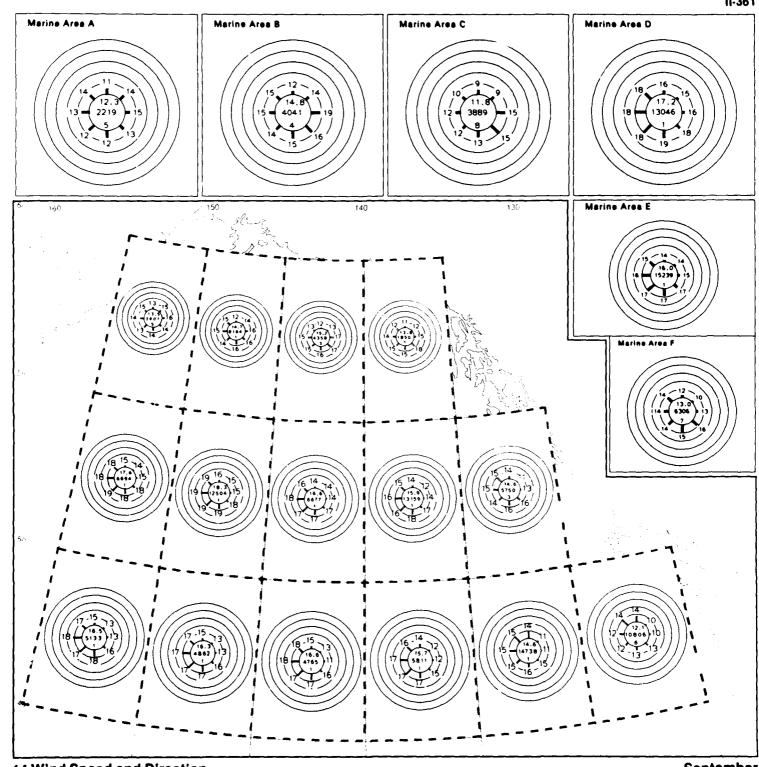


14 Wind Speed and Direction

**August** 

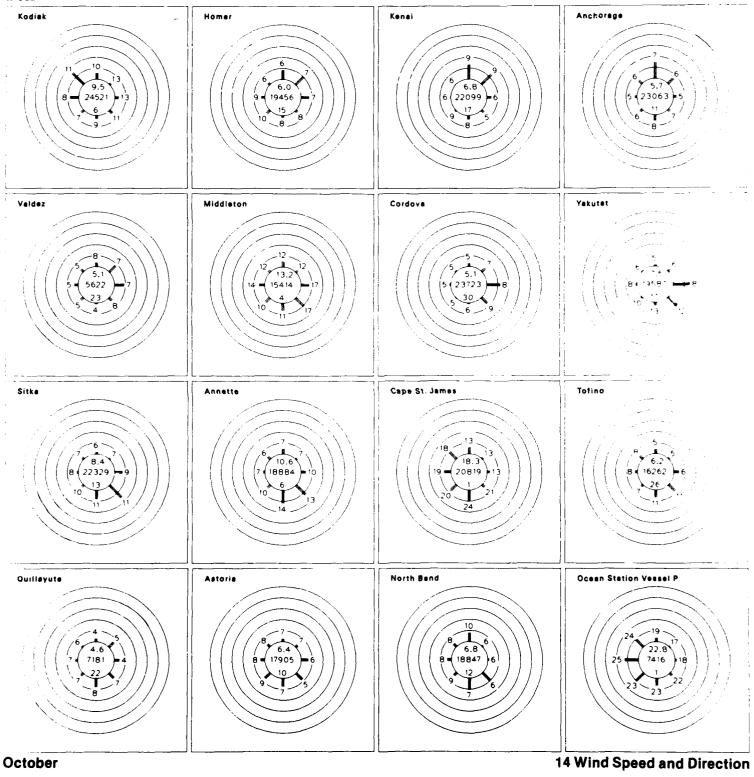


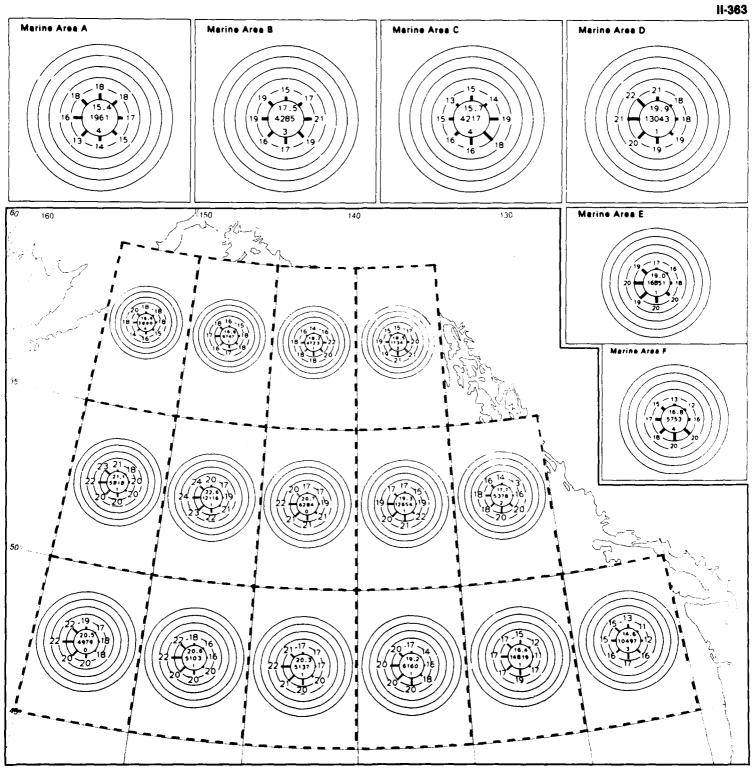
14 Wind Speed and Direction



14 Wind Speed and Direction

September

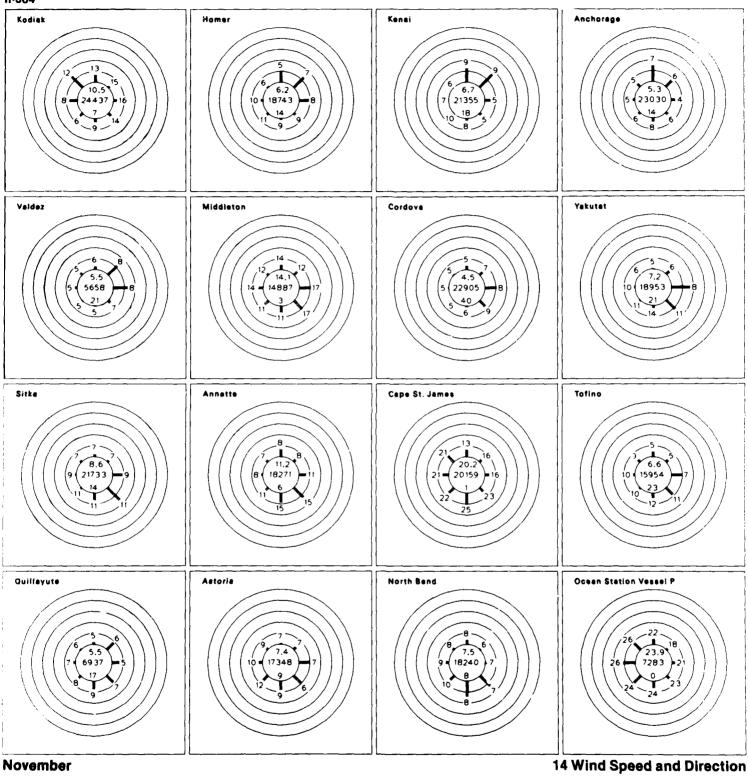


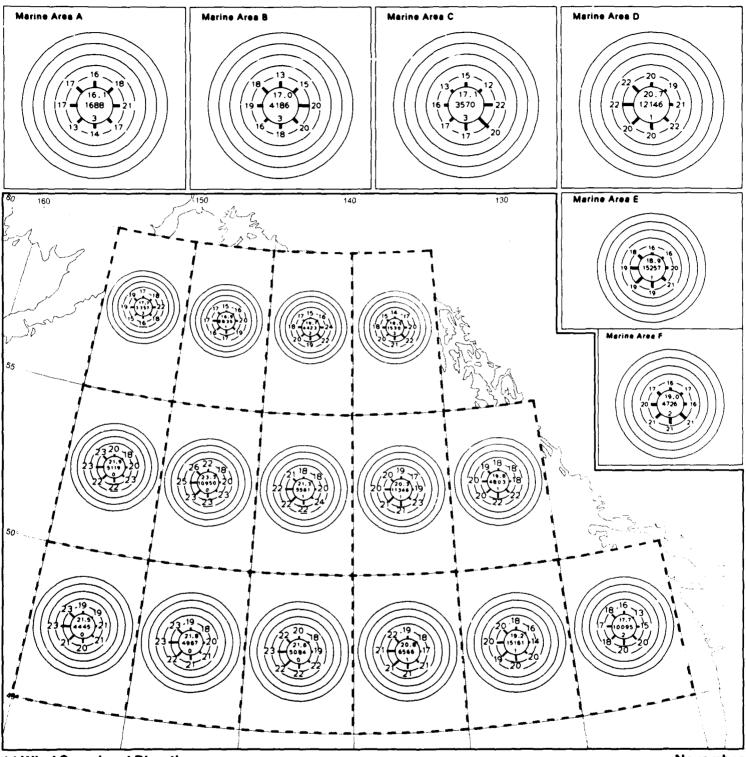


14 Wind Speed and Direction

October

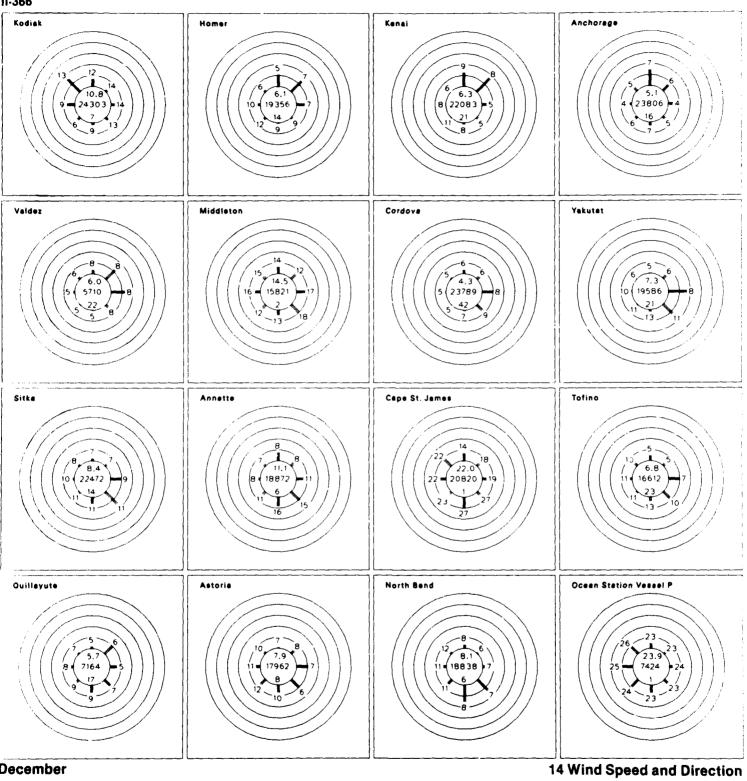
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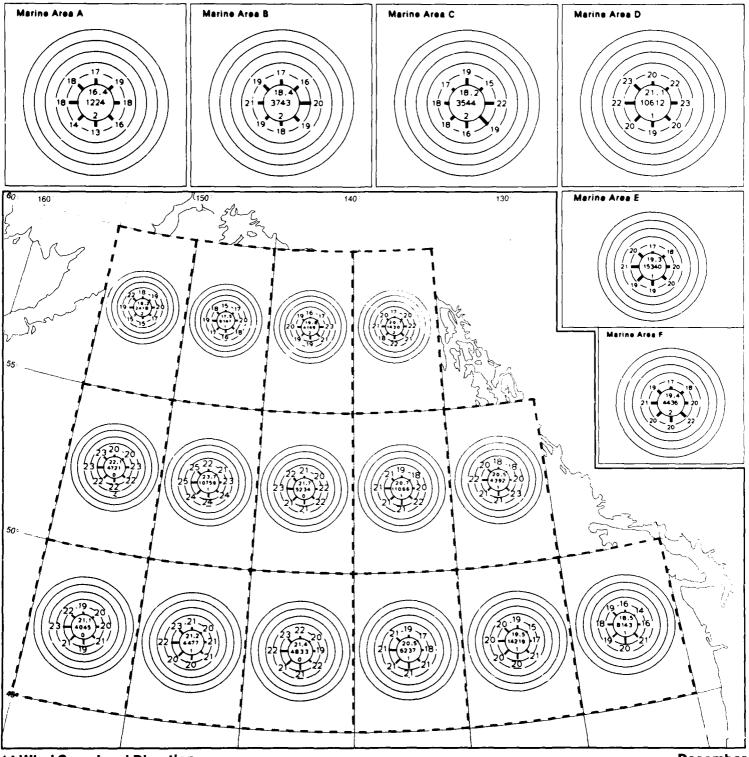
14 Wind Speed and Direction

November



December

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14 Wind Speed and Direction

December

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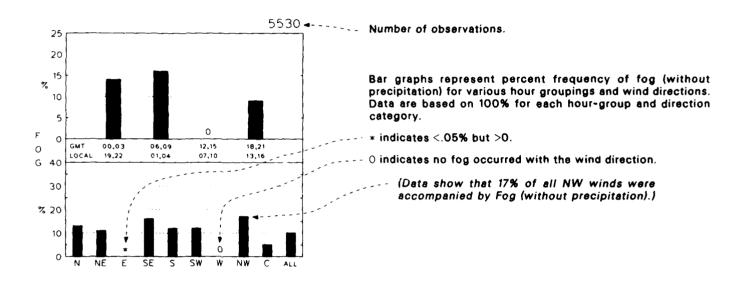
### Map 15. Fog and poor visibility

BLACK LINE - Percent frequency of visibility <1/2 nautical mile.

BLUE LINE - Percent frequency of fog occurring without precipitation.

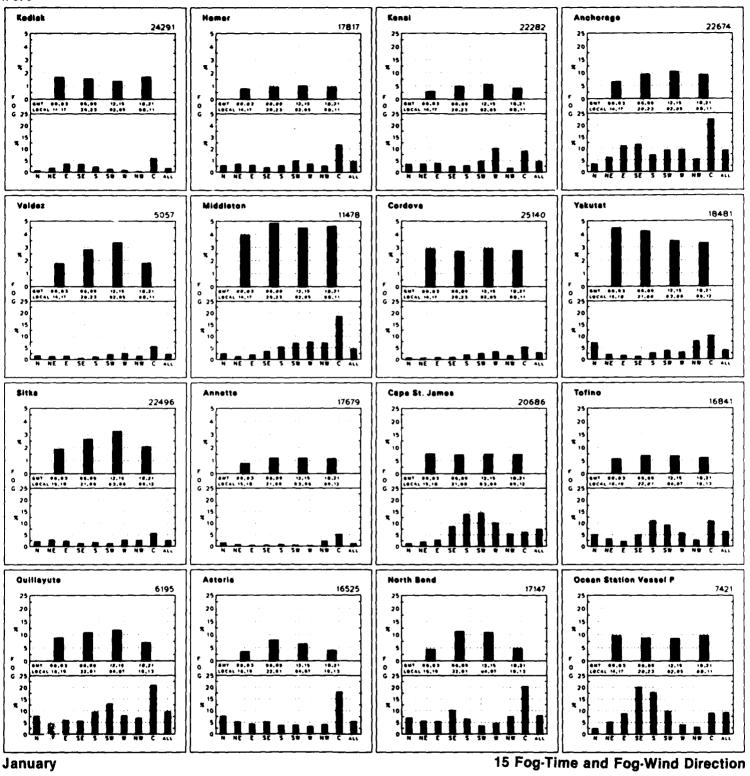
Albers Equal-Area Conic Projection

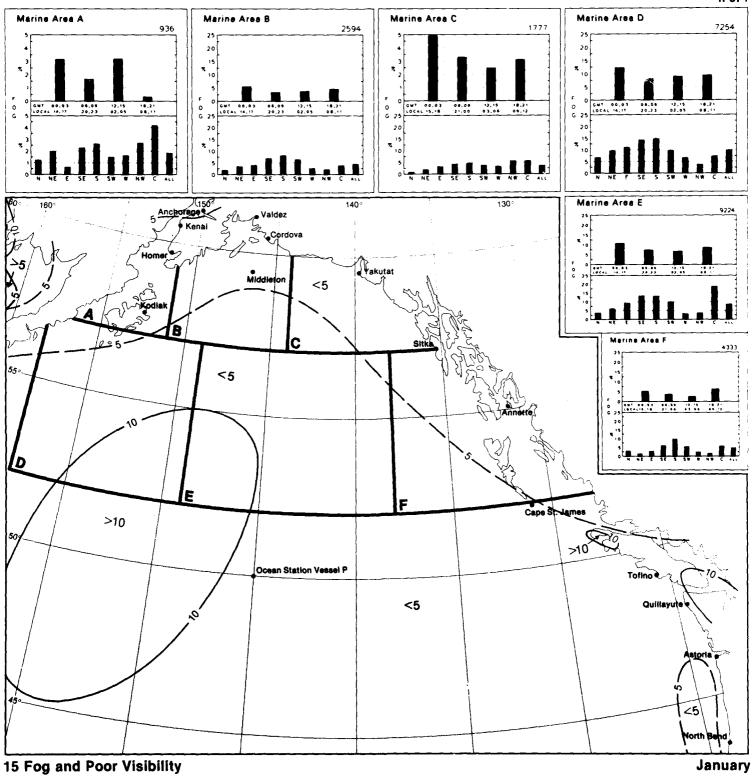
## Graphs: Fog/time and fog/wind direction

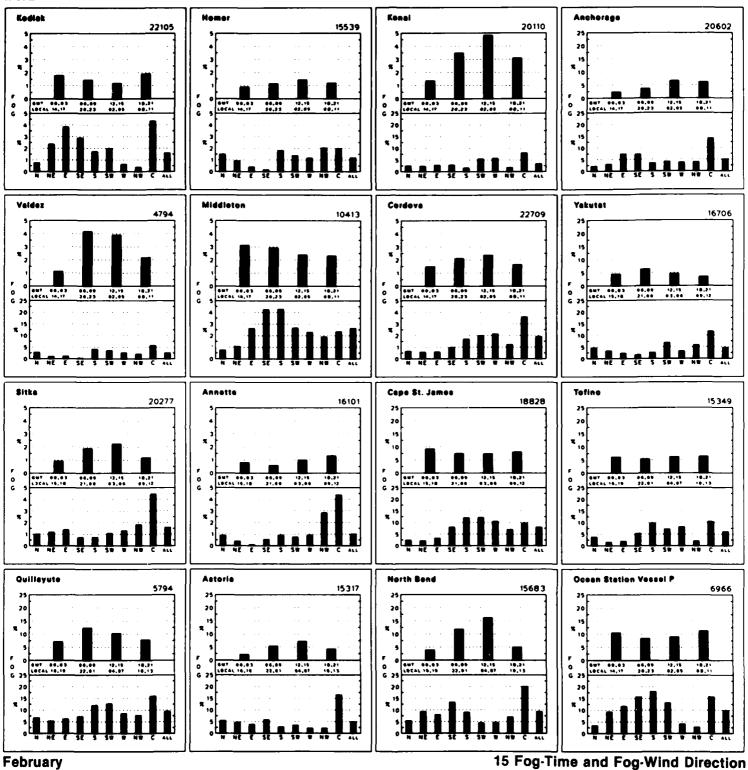


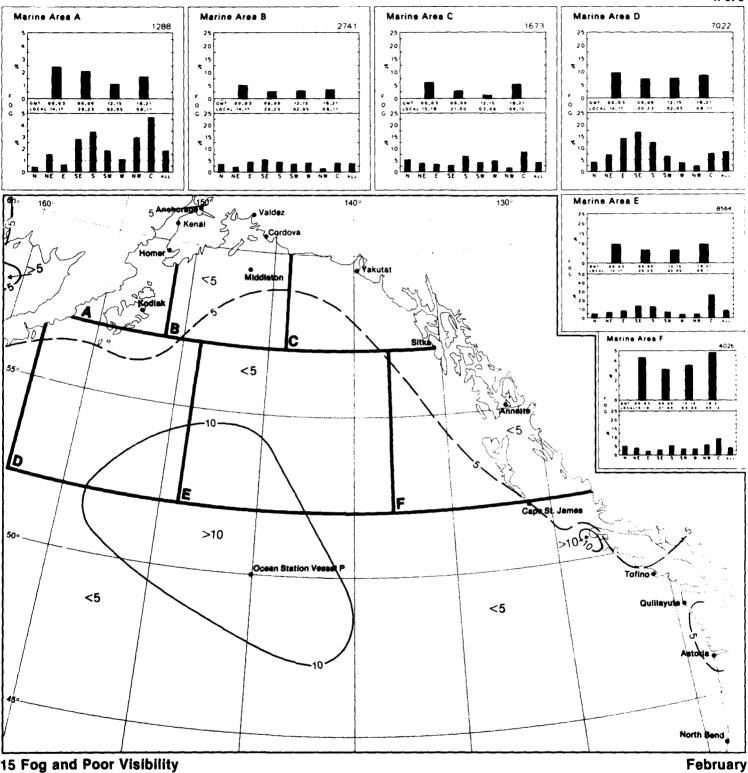
Fog is composed of minute droplets suspended in the atmosphere near the earth's surface which have no visible downward motion (fog is a stratus cloud on the surface). Fog is distinguished from haze (suspended dust or salt particles, yellowish or blue in color) by its dampness and grey color; also its restriction of visibility (less than one-half nautical mile) if deeper than 33 feet, a height considered average for the observer above the sea surface while standing on the bridge of a ship (WMO code). Fog rarely exists when the difference between the air and dew point temperatures is more than 2.5 °C. Present weather coding of fog in the marine observation is restricted to reporting of fog only when no precipitation is occurring at the time of observation (see present weather code table in the text of Set 2). Therefore, determination of occurrences of either fog with precipitation or all fog is not possible. The isopleth presentation (BLACK LINE) of visibility less than one-half nautical mile, includes restrictions to visibility due to any weather phenomena; i.e., fog, precipitation, dust, smoke, etc.

15 Legend Legend 15

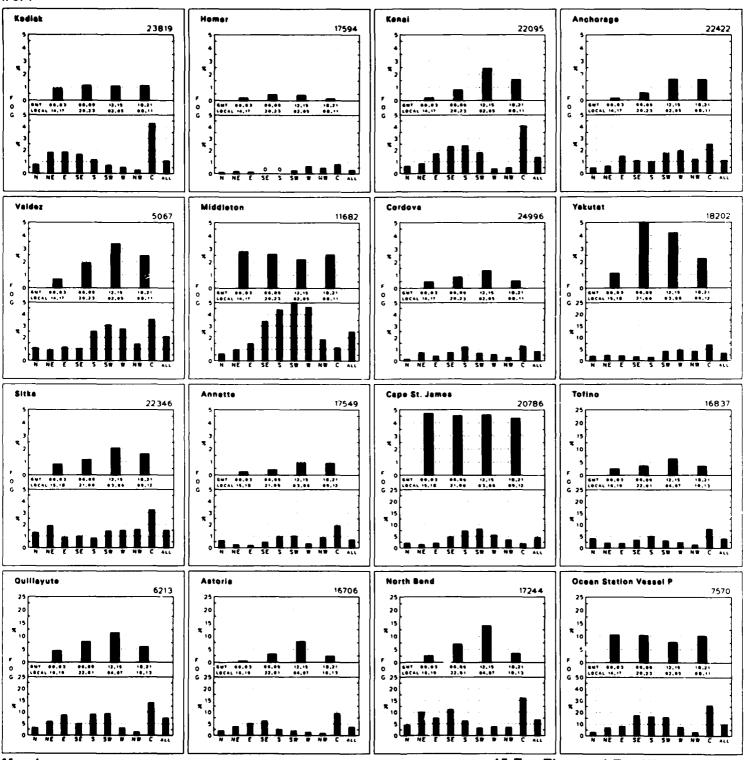




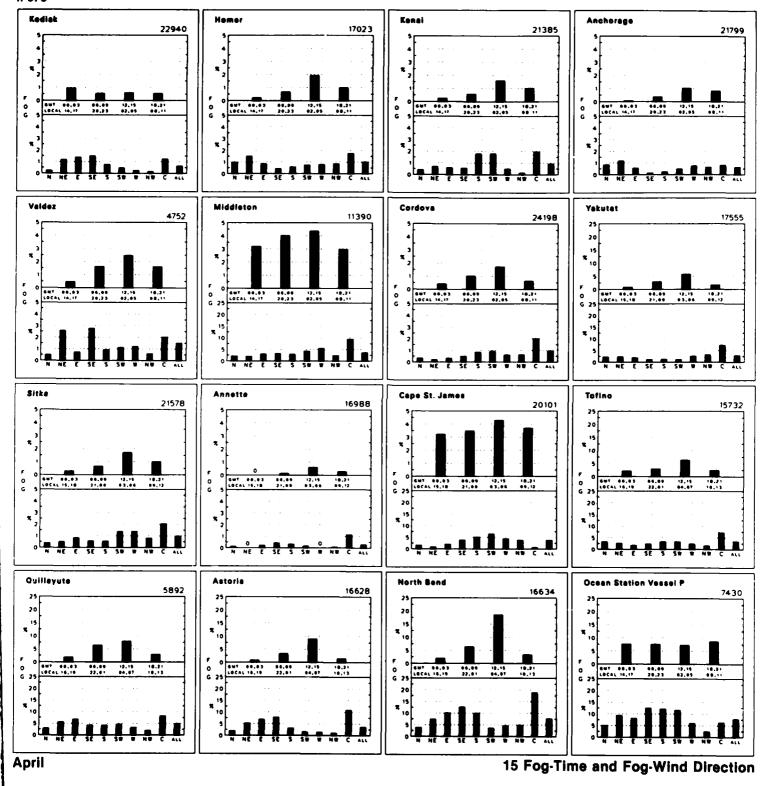


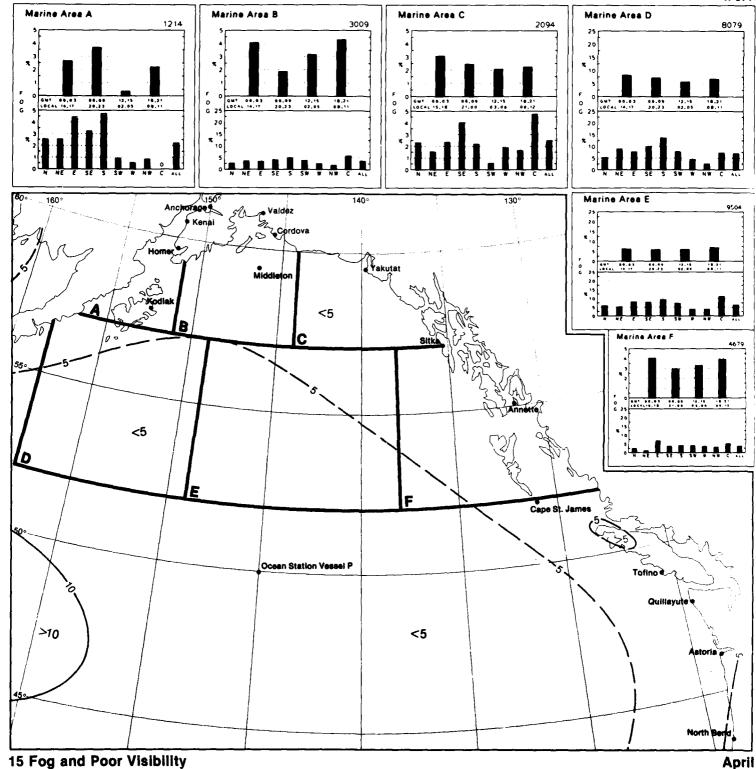


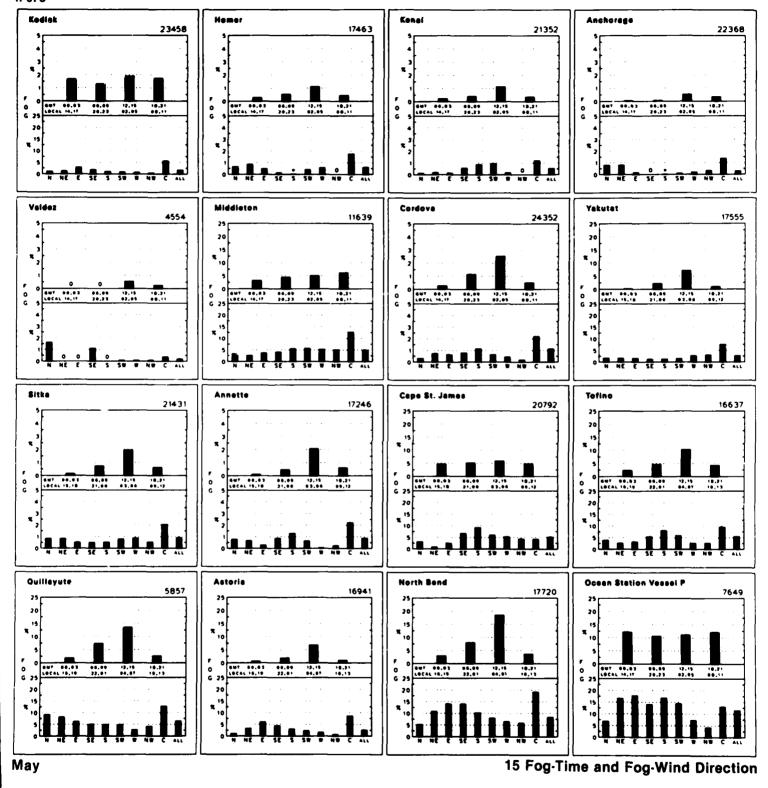
15 Fog and Poor Visibility

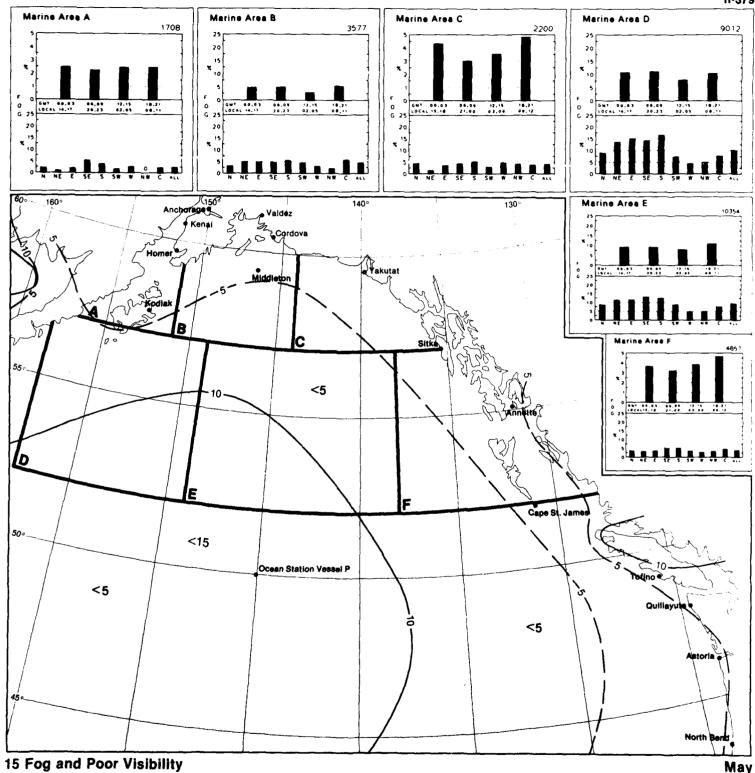


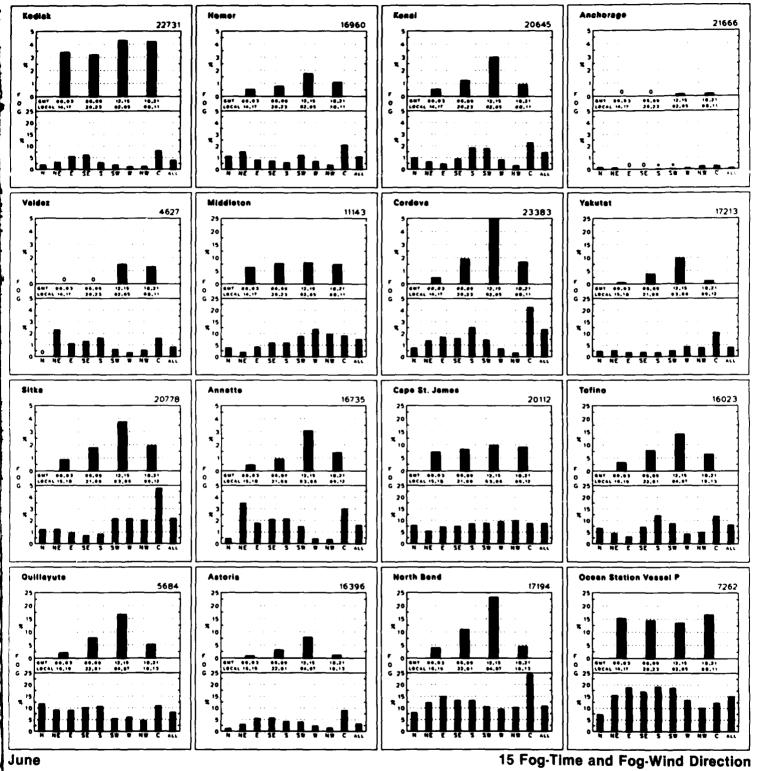
March 15 Fog-Time and Fog-Wind Direction

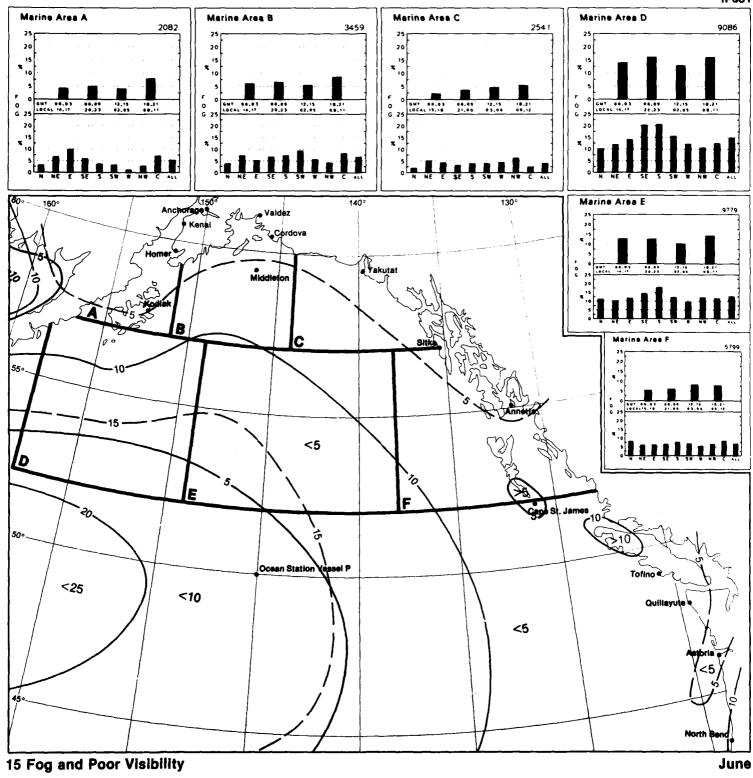


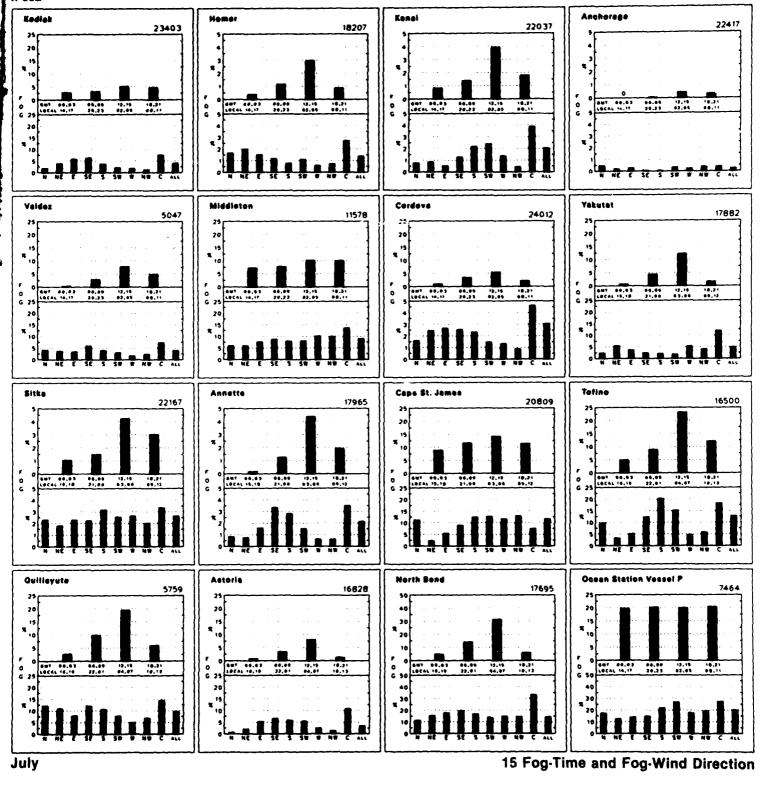


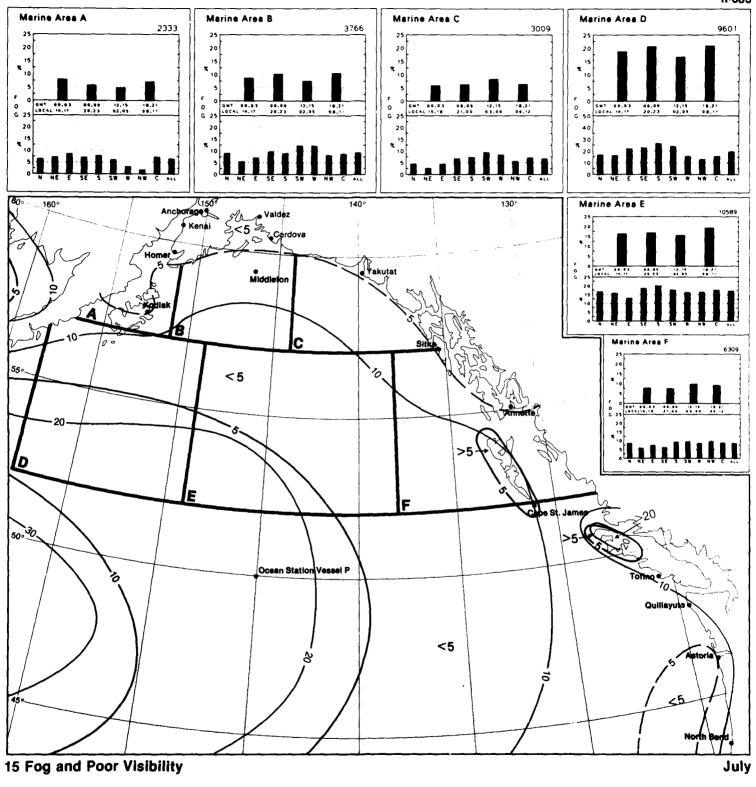


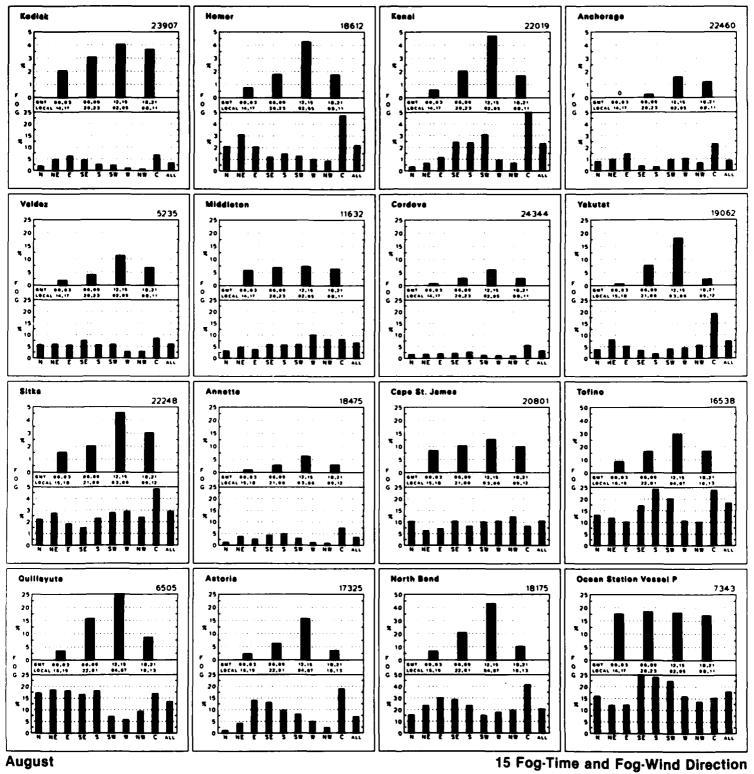


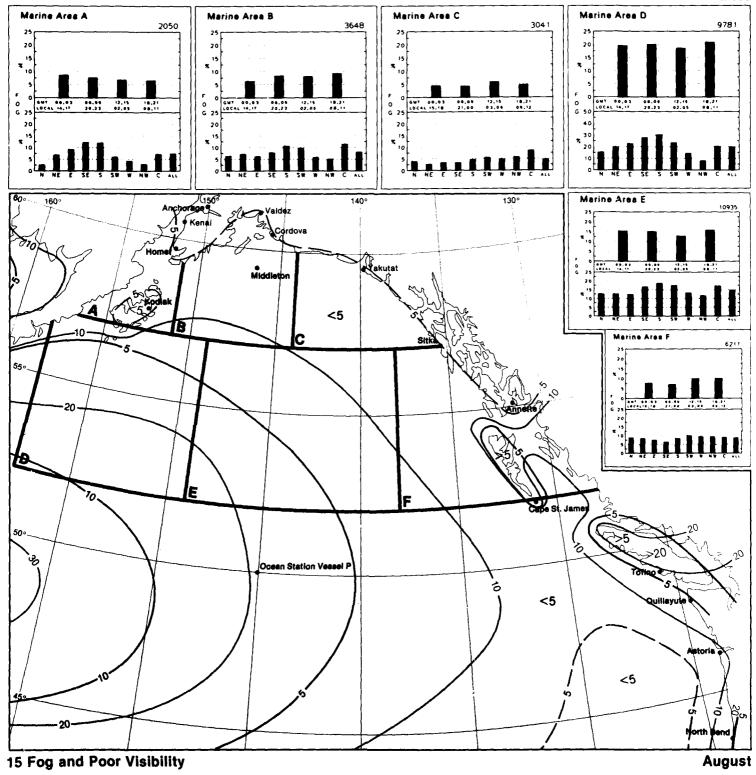


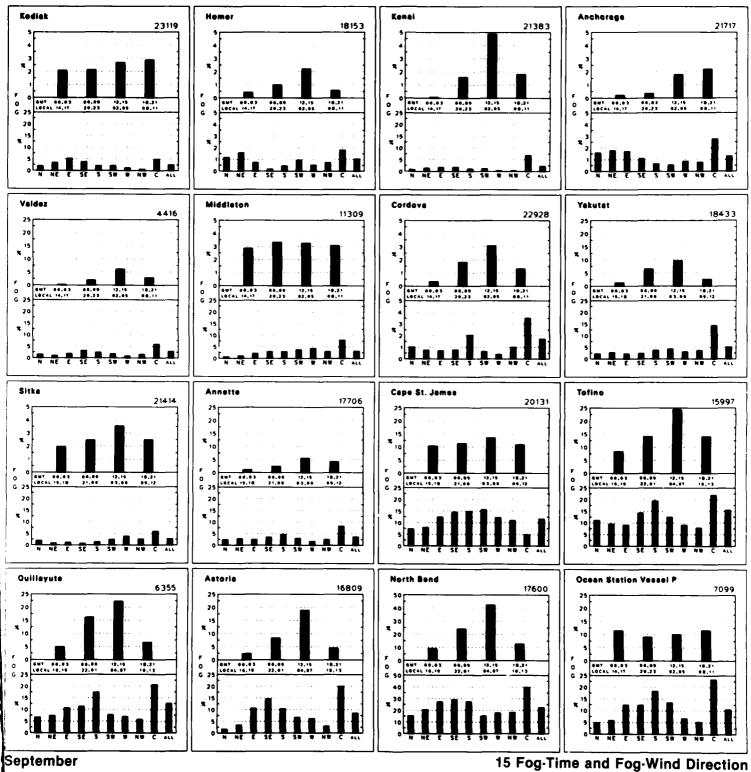


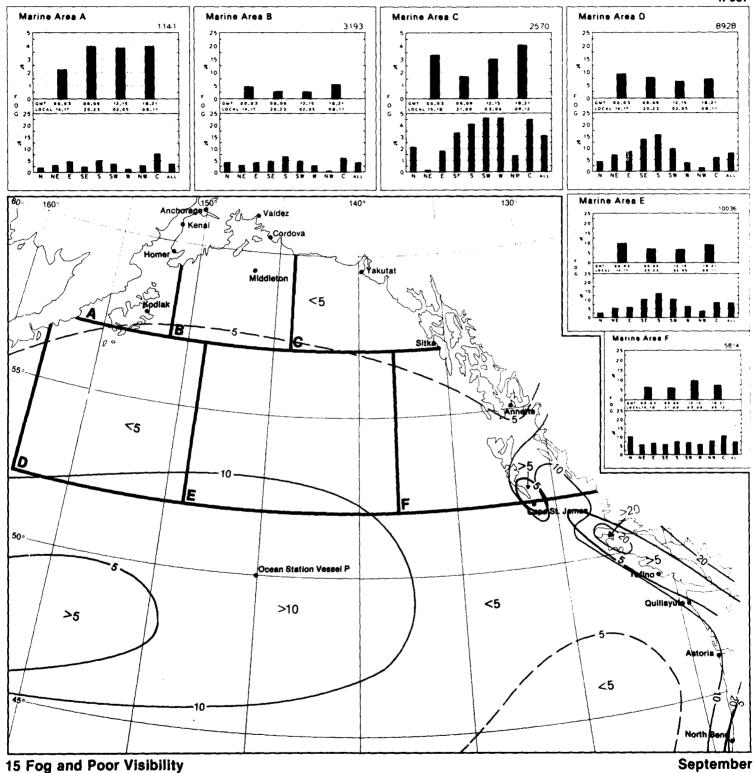




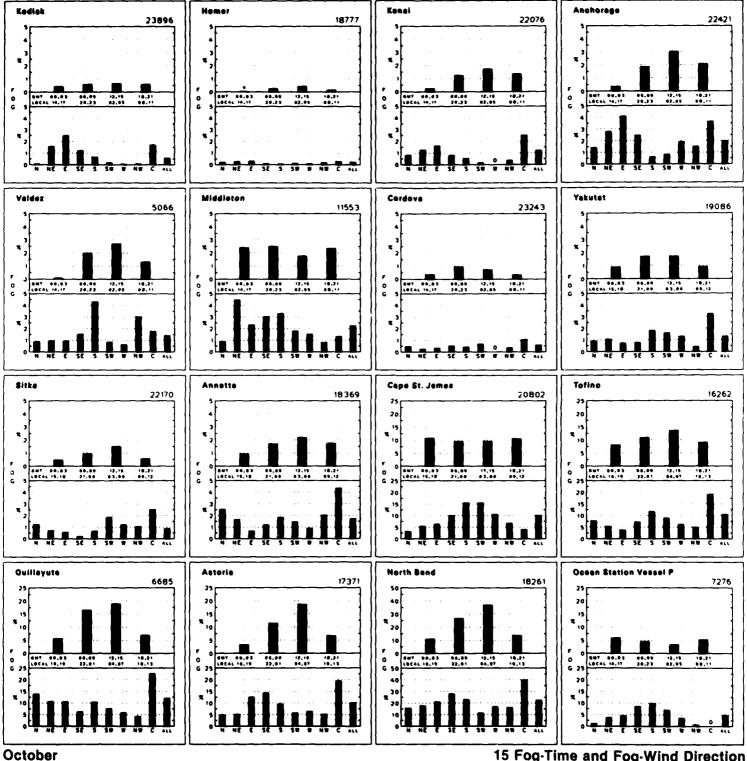




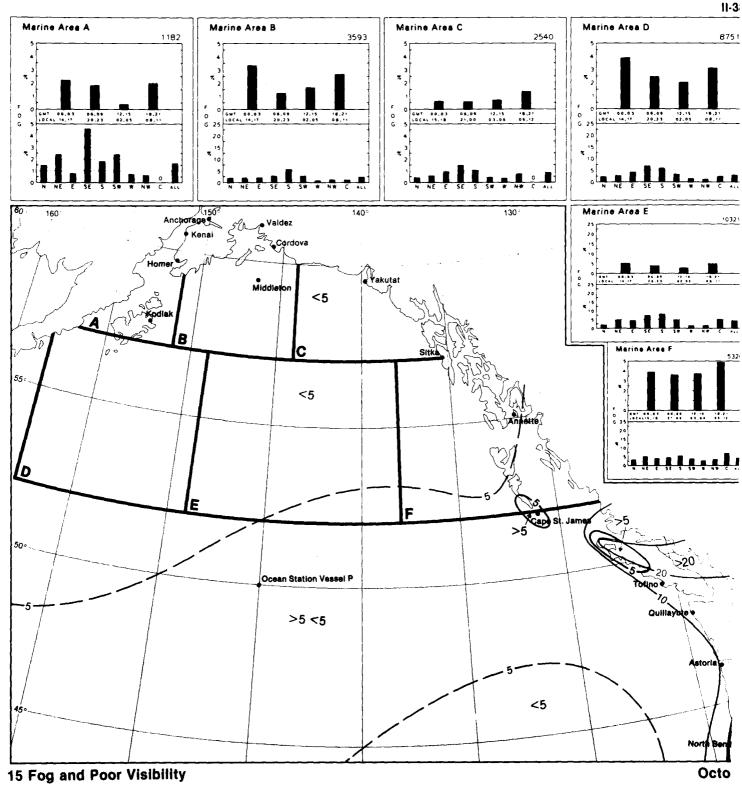


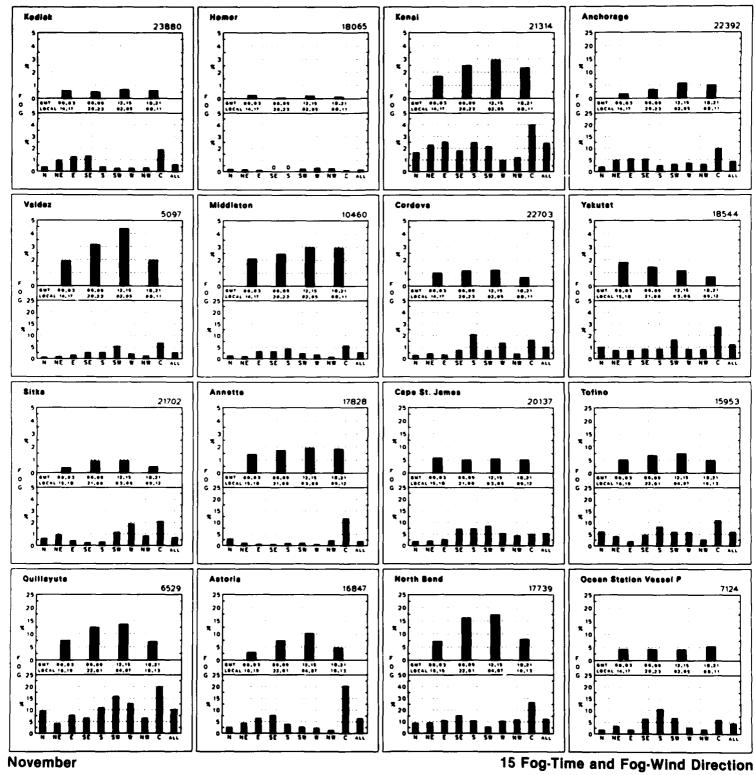


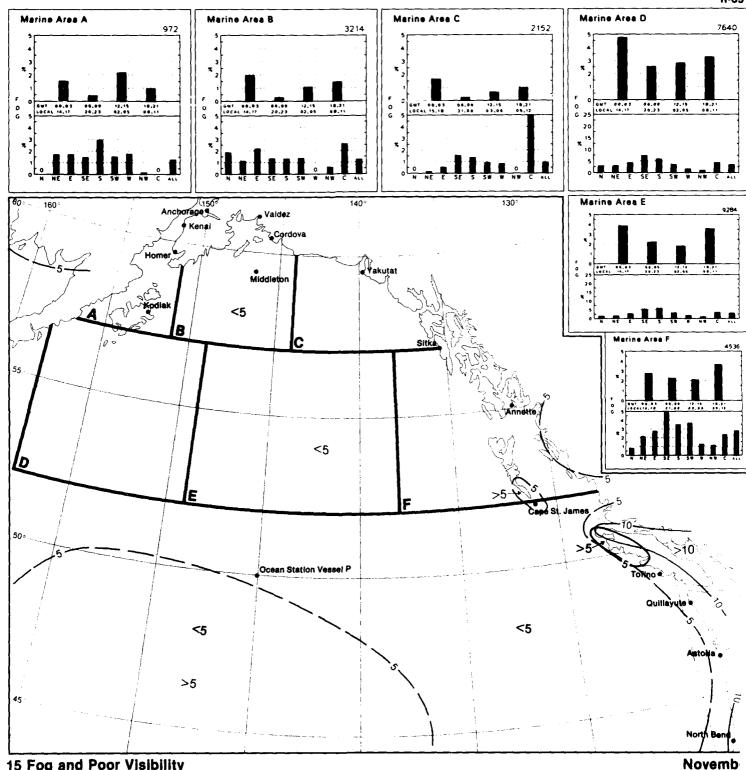
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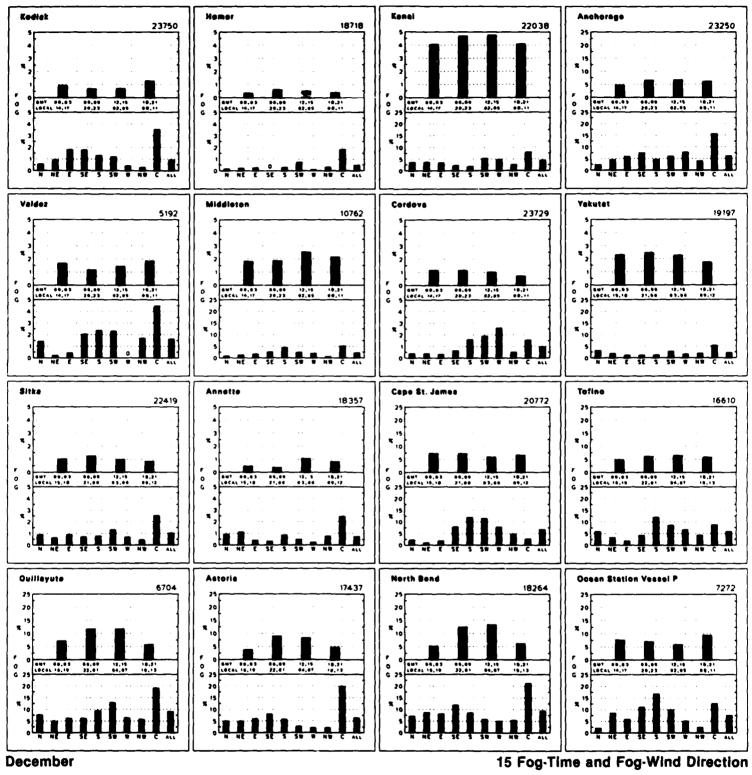
15 Fog-Time and Fog-Wind Direction

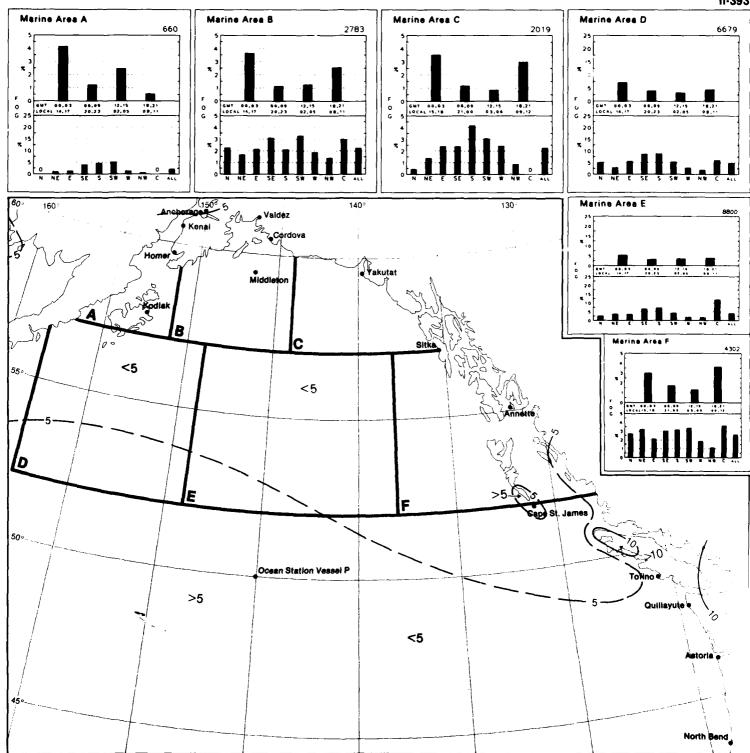






15 Fog and Poor Visibility





15 Fog and Poor Visibility

December

# Map 16. Sea surface temperature extremes (°C)

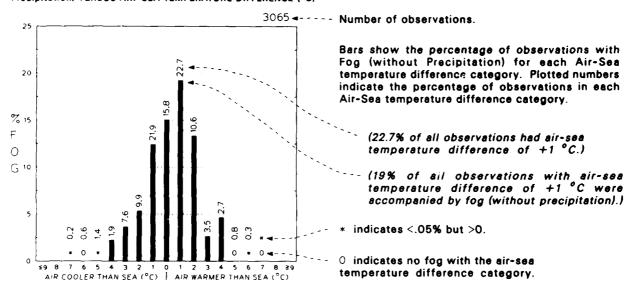
BLACK LINE — Maximum (99%) sea surface temperature (1% of the temperatures were greater than the given value).

BLUE LINE – Minimum (1%) sea surface temperature (1% of the temperatures were equal to or less than the given value).

Albers Equal—Area Conic Projection

## Graphs: Fog/air-sea temperature difference

PERCENT FREQUENCY OF THE OCCURRENCE OF FOG (Without Precipitation) VERSUS AIR-SEA TEMPERATURE DIFFERENCE (°C)

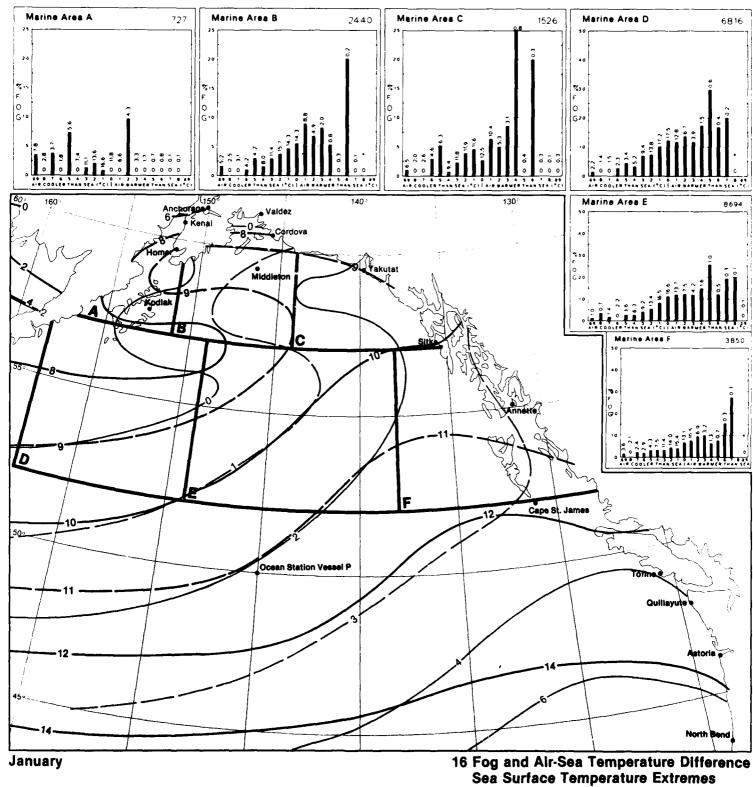


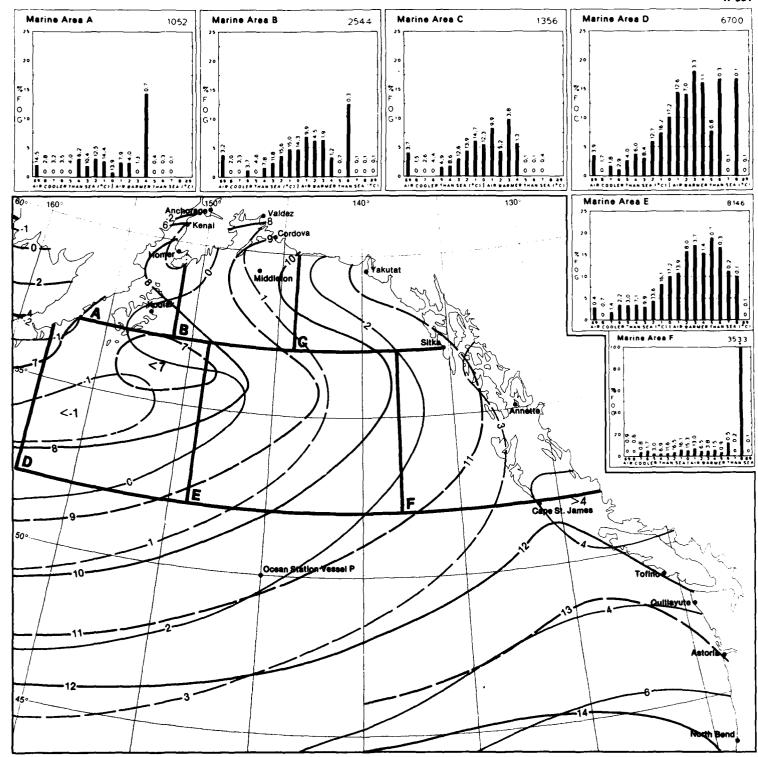
Sea surface temperatures are recorded with a fairly high frequency in marine observations. The principal methods for observing the temperature of the water surface on merchant ships are by either a fluid thermometer located in the condenser intake of the ship or a thermometer immersed in a freshly-drawn bucket of surface water. While the intake method is commonly used on most merchant ships today, the bucket method was the most common a half century ago. Injection temperatures are not considered as representative of the surface temperature as bucket readings because the injectors are commonly located well below the water surface at depths of 5 to 20 meters depending on the size of the ship. Injection temperatures are also subject to varying errors due to heating caused by the ship. Bucket temperatures can also be biased by the air temperature or the bucket itself.

Even though the two methods produce slightly different results, the data can be used with considerable confidence. The isopleths representing extreme conditions show the maximum (99%) and the minimum (1%) levels of sea surface temperature. Gradients and relative values of the isopleths are considered reliable.

16 Legend

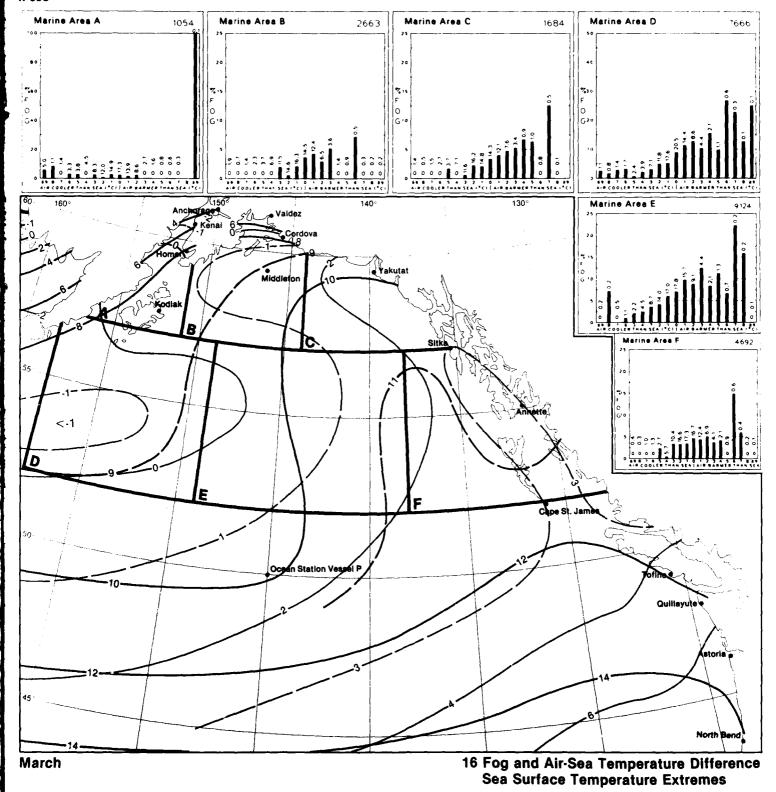
Legend 16

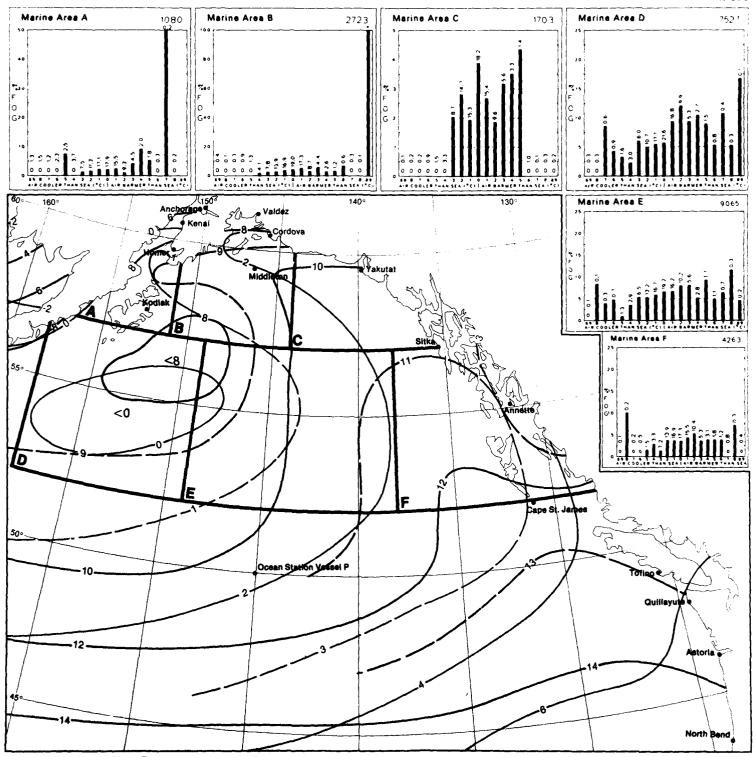




16 Fog and Air-Sea Temperature Difference Sea Surface Temperature Extremes

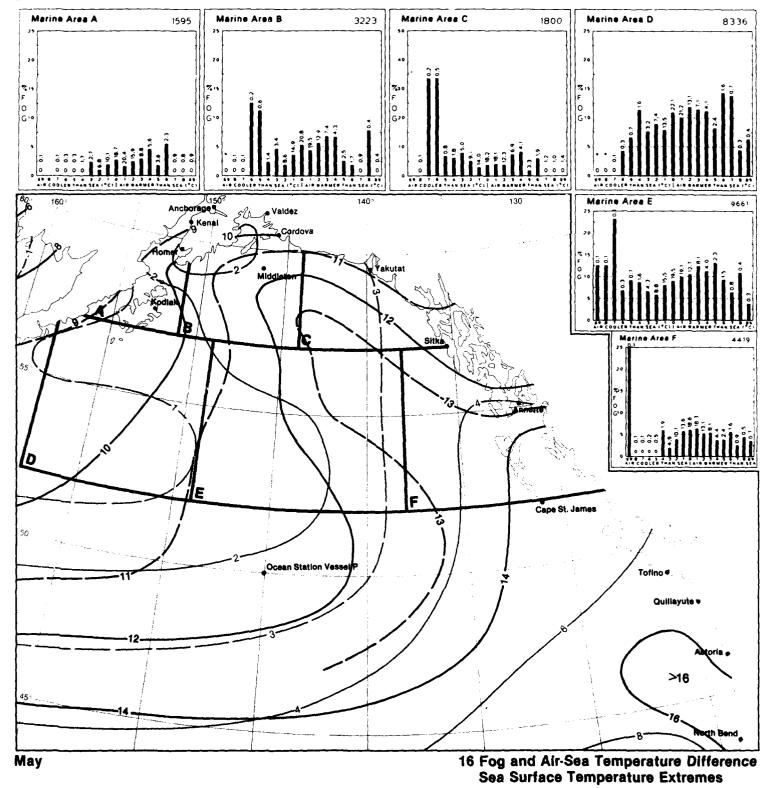
**February** 

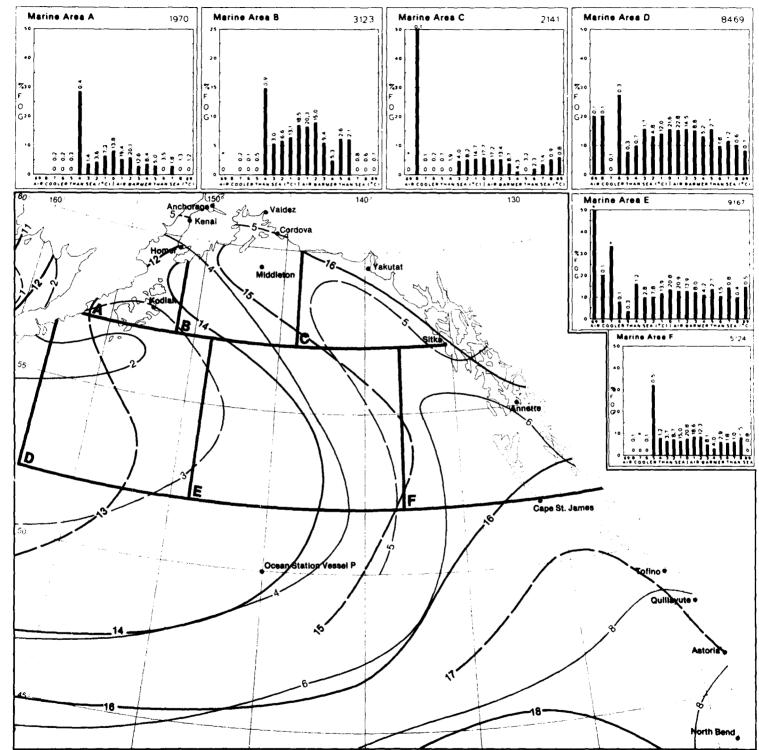




16 Fog and Air-Sea Temperature Difference Sea Surface Temperature Extremes

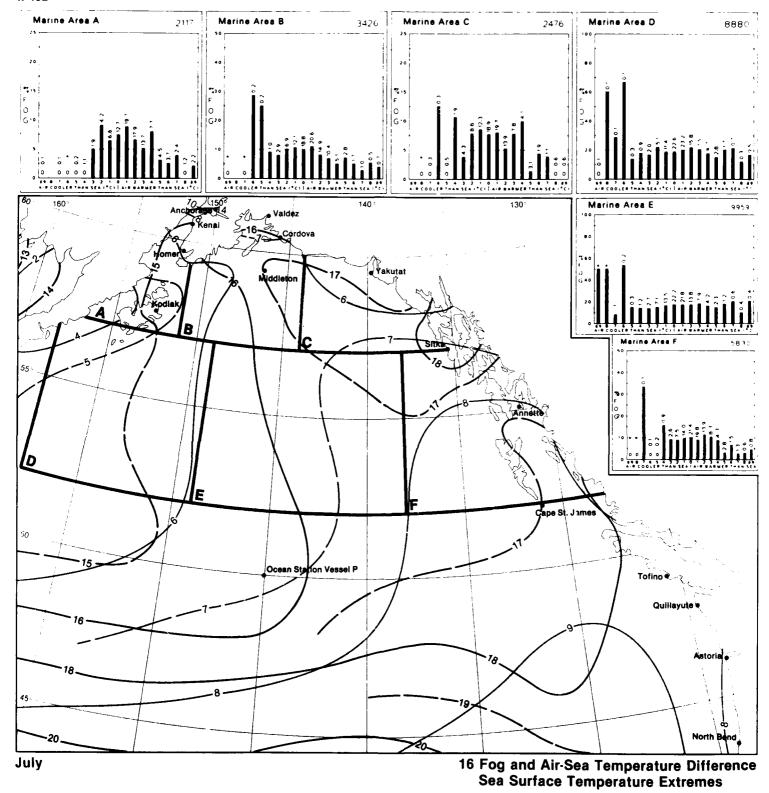
April

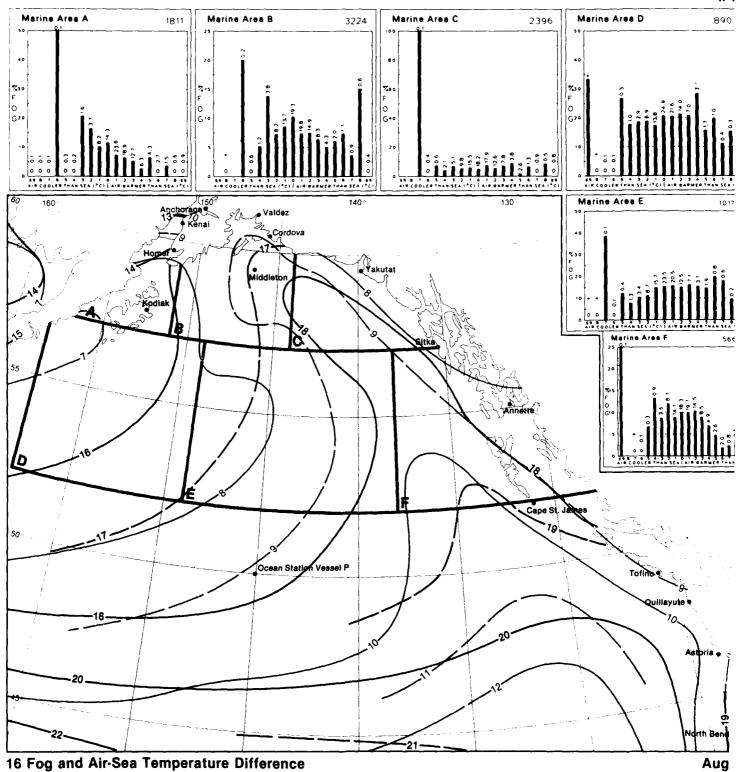




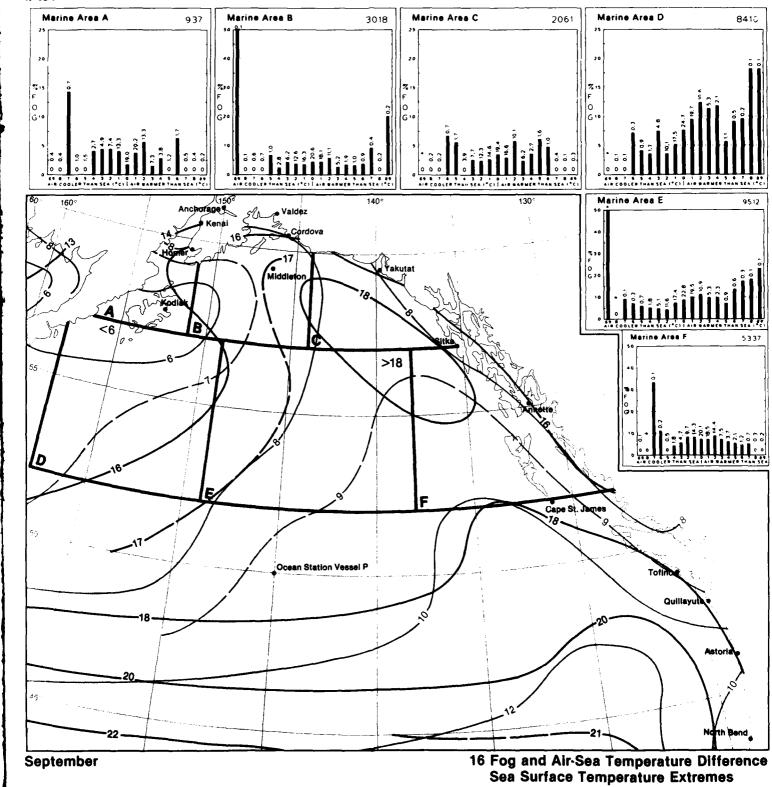
16 Fog and Air-Sea Temperature Difference Sea Surface Temperature Extremes

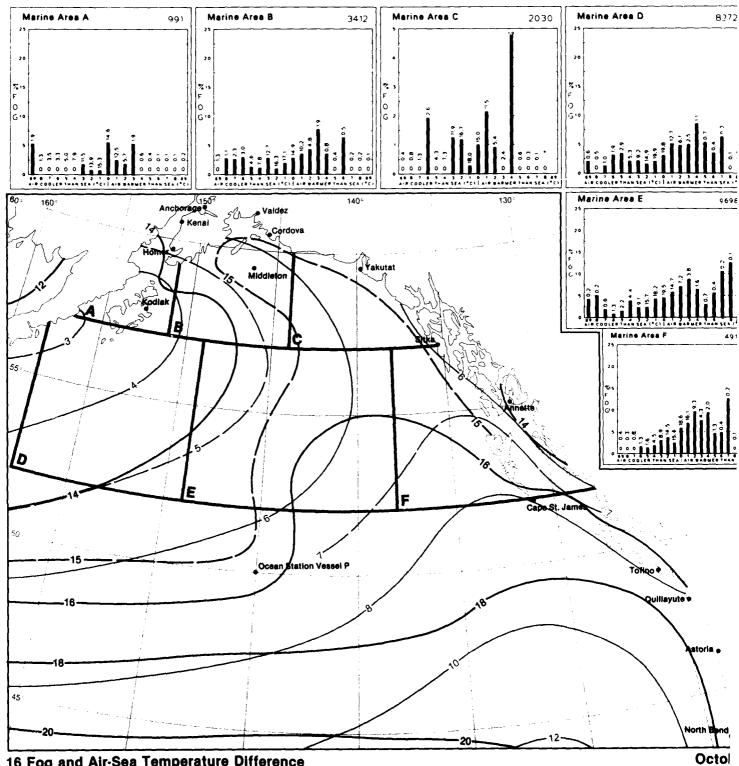
June



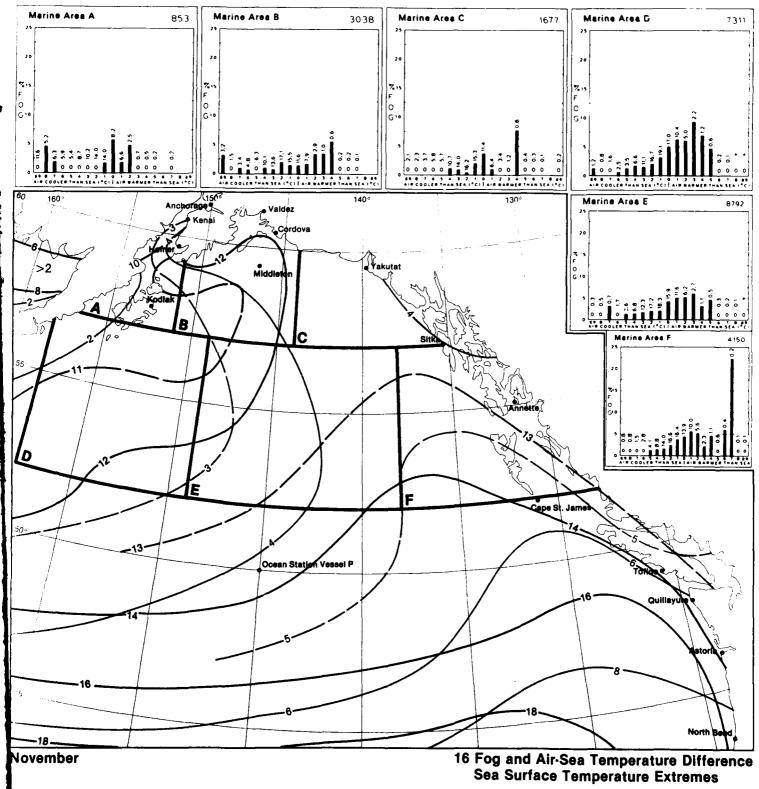


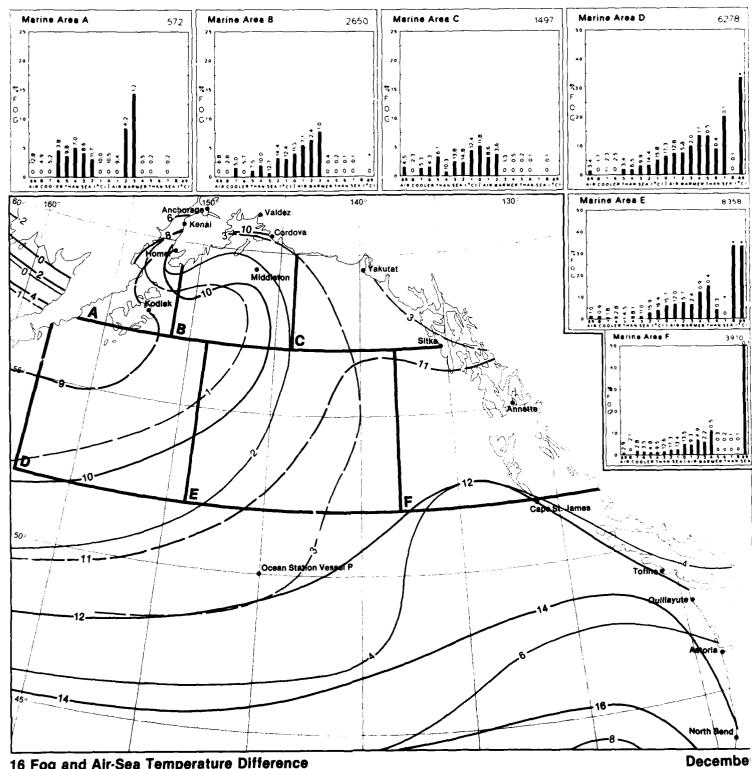
16 Fog and Air-Sea Temperature Difference Sea Surface Temperature Extremes





16 Fog and Air-Sea Temperature Difference Sea Surface Temperature Extremes





16 Fog and Air-Sea Temperature Difference Sea Surface Temperature Extremes

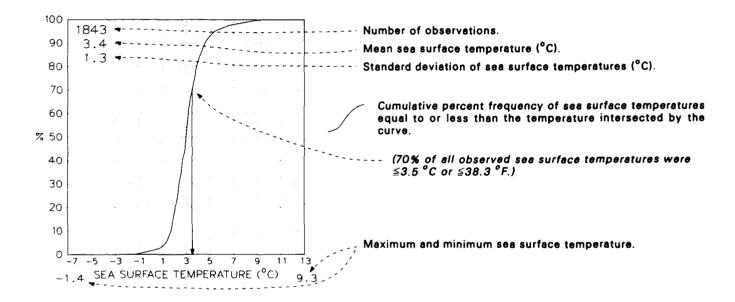
## Map 17. Mean sea surface temperature and ice concentration of any kind.

BLACK LINE - Mean sea surface temperature (°C).

BLUE LINE - Percent frequency of occurrence of ice of any kind.

Albers Equal-Area Conic Projection

## Graphs: Sea surface temperature



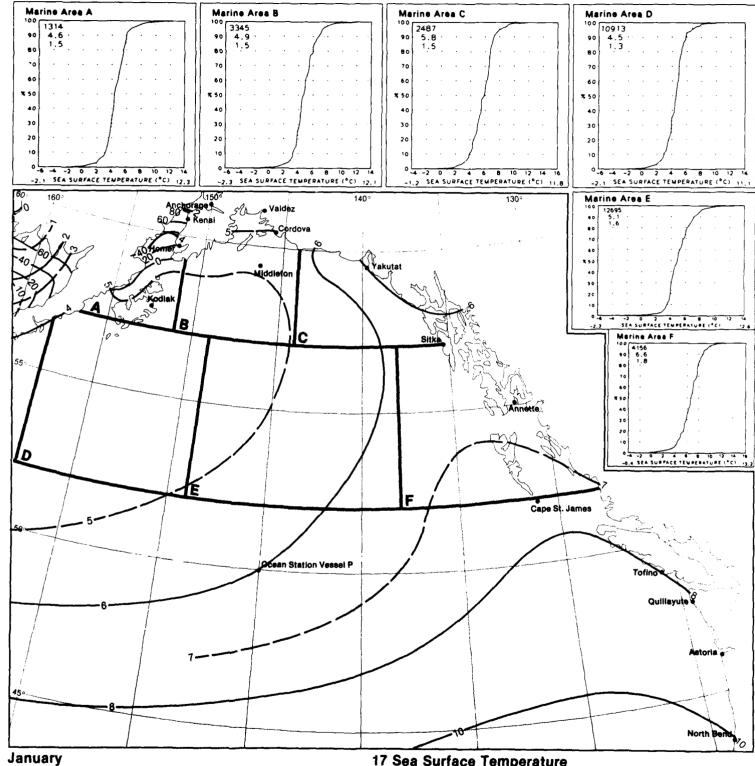
The percentage of temperatures greater than a given value can be obtained from the graph by subtracting the cumulative frequency of that value from 100%. Sea surface temperatures may be used to estimate the length of time a person in ordinary clothes and life preserver may be expected to survive if washed overboard. The approximate survival time as a function of water temperature is shown in the following table (refer to the text in Section I of the atlas for information on immersion hypothermia and to the introductory text in Section II for sea ice information).

Water Temperature	Exhaustion or Unconsciousness	Expected time of Survival
0°C 0°—5°C 5°—10°C 10°—15°C 15°—20°C 20°—25°C 25°C	15 min 15—30 min 30—60 min 1—2 hours 2—7 hours 3—12 hours Indefinite	15—45 min 30—90 min 1—3 hours 1—6 hours 2—40 hours 3—indefinite hrs

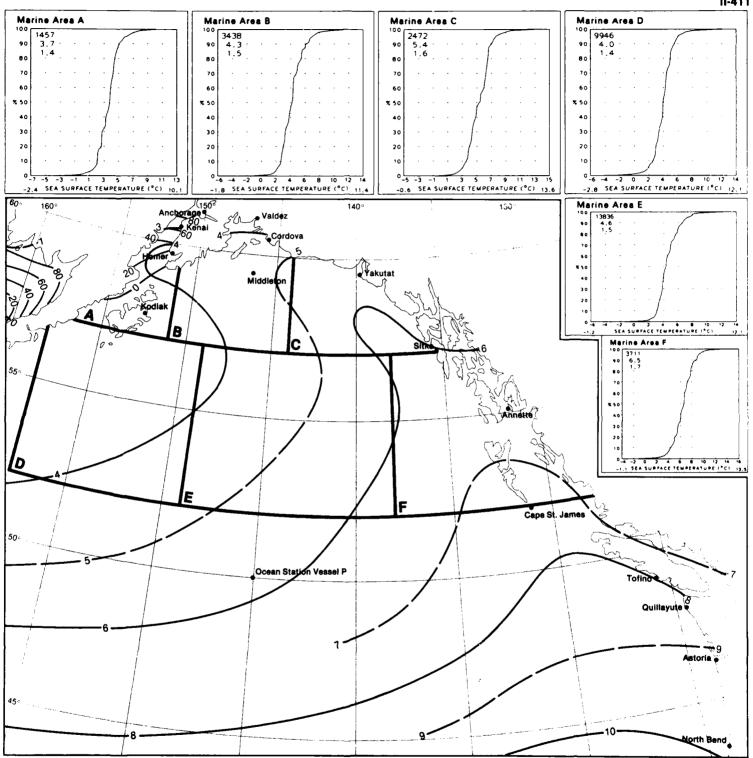
17 Legend

Legend



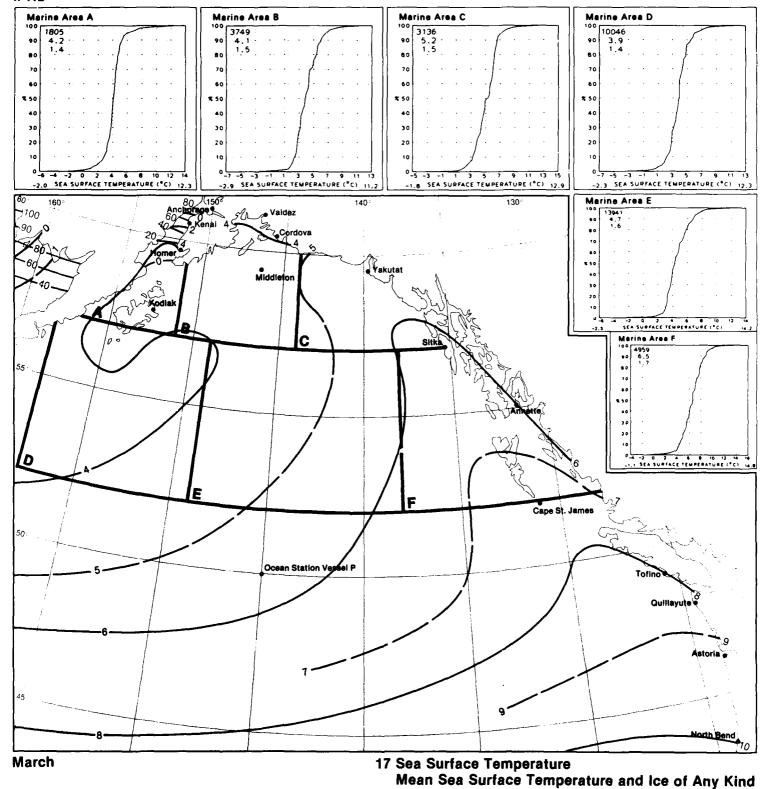


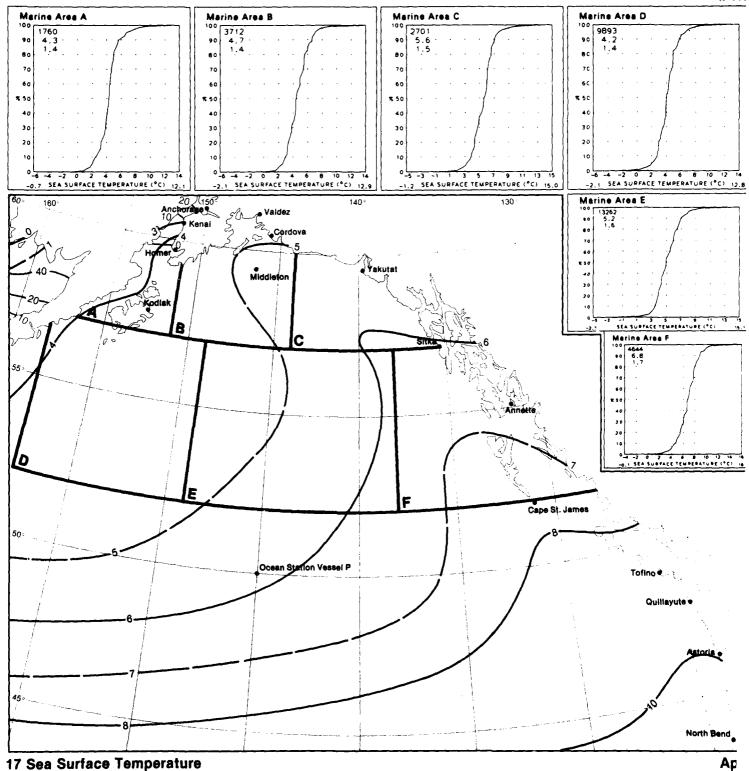
17 Sea Surface Temperature
Mean Sea Surface Temperature and Ice of Any Kind



17 Sea Surface Temperature
Mean Sea Surface Temperature and Ice of Any Kind

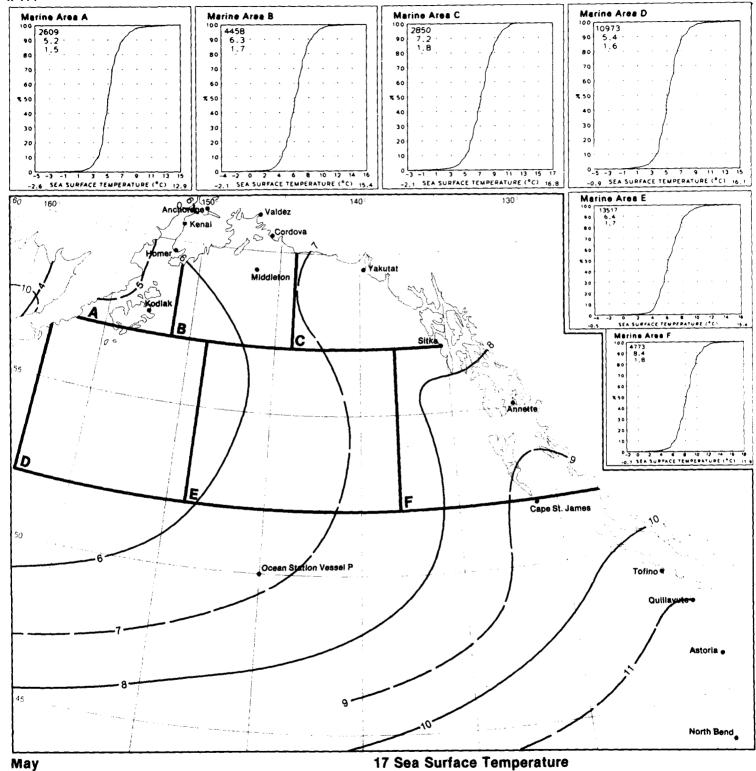
February



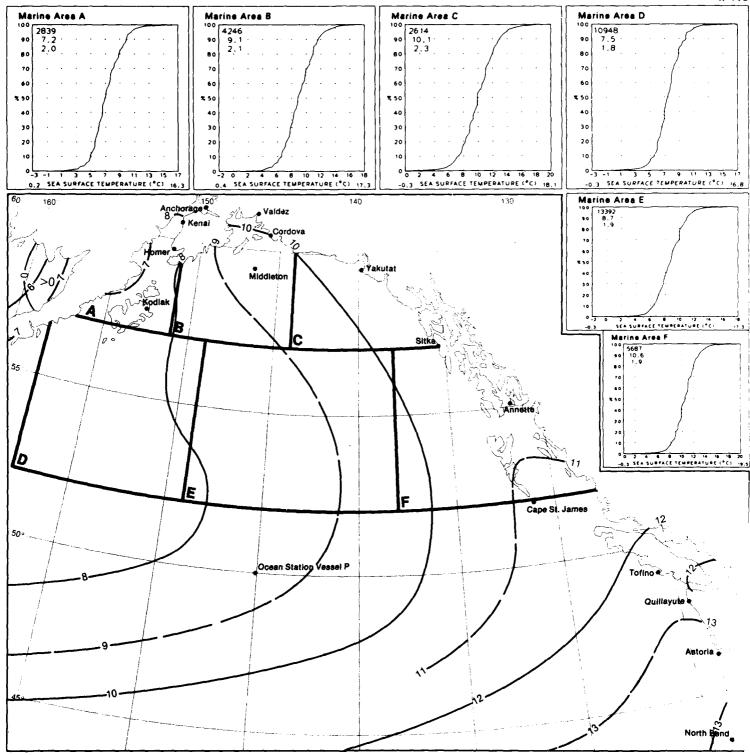


17 Sea Surface Temperature
Mean Sea Surface Temperature and Ice of Any Kind



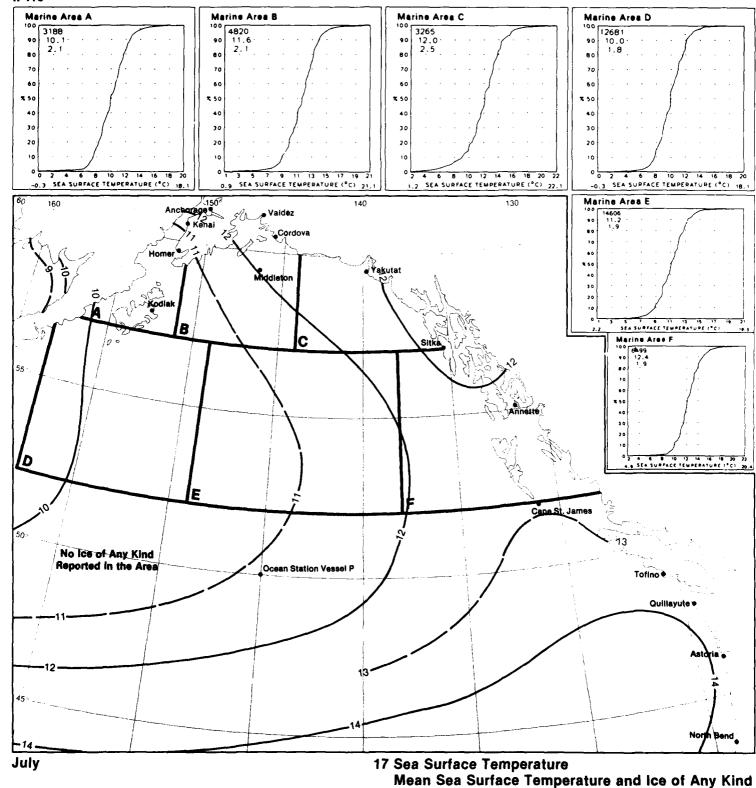


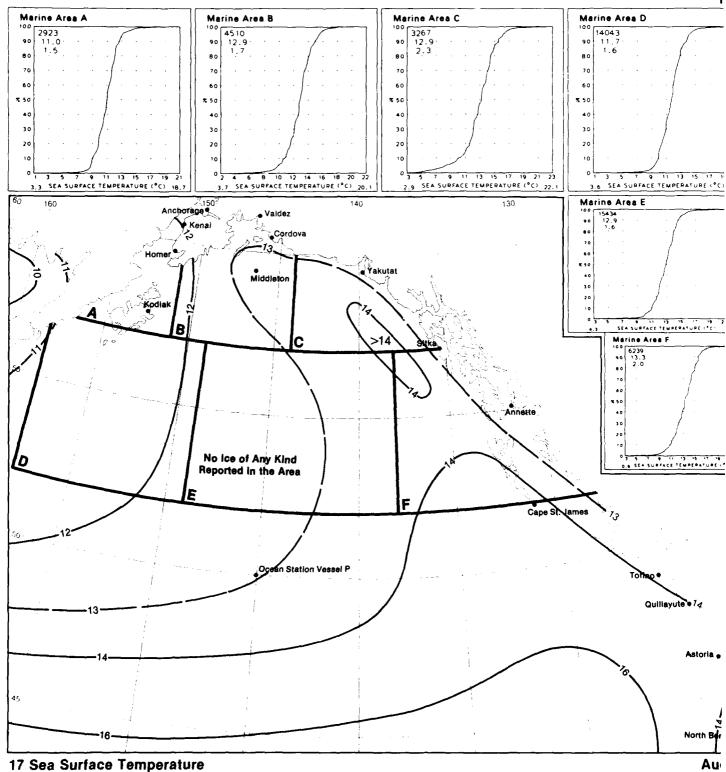
7 Sea Surface Temperature
Mean Sea Surface Temperature and Ice of Any Kind



17 Sea Surface Temperature
Mean Sea Surface Temperature and Ice of Any Kind

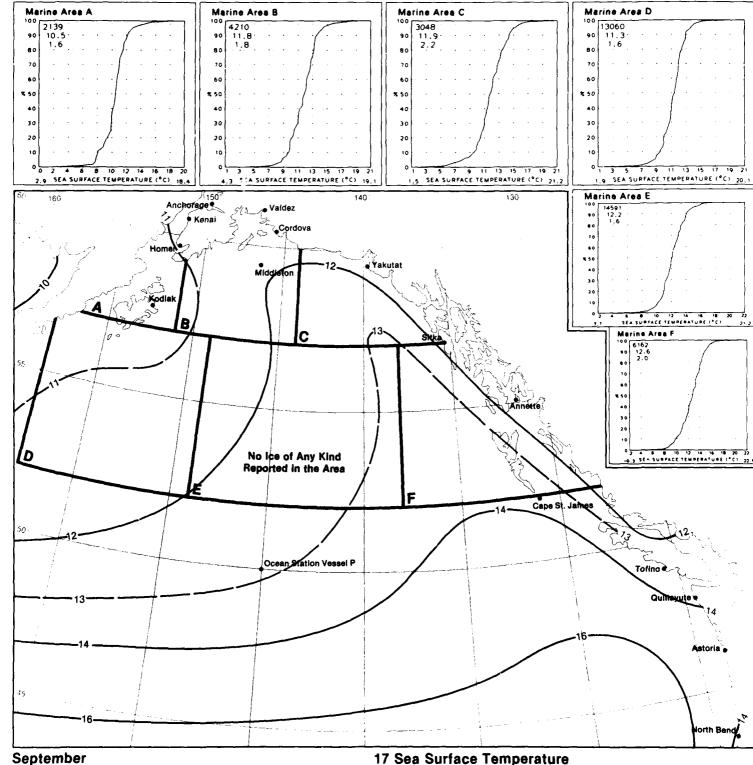






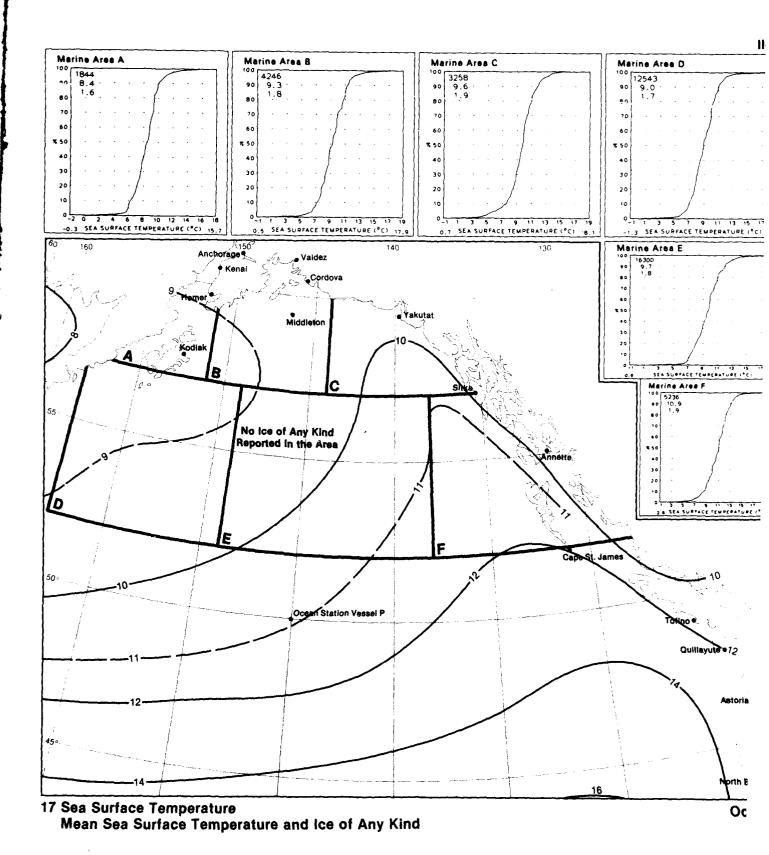
17 Sea Surface Temperature

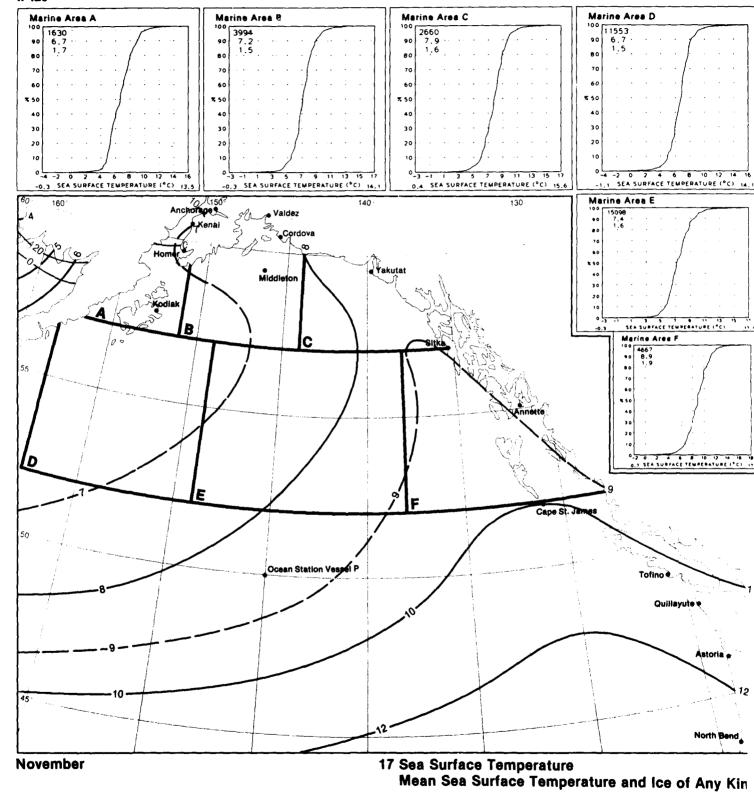
Mean Sea Surface Temperature and Ice of Any Kind

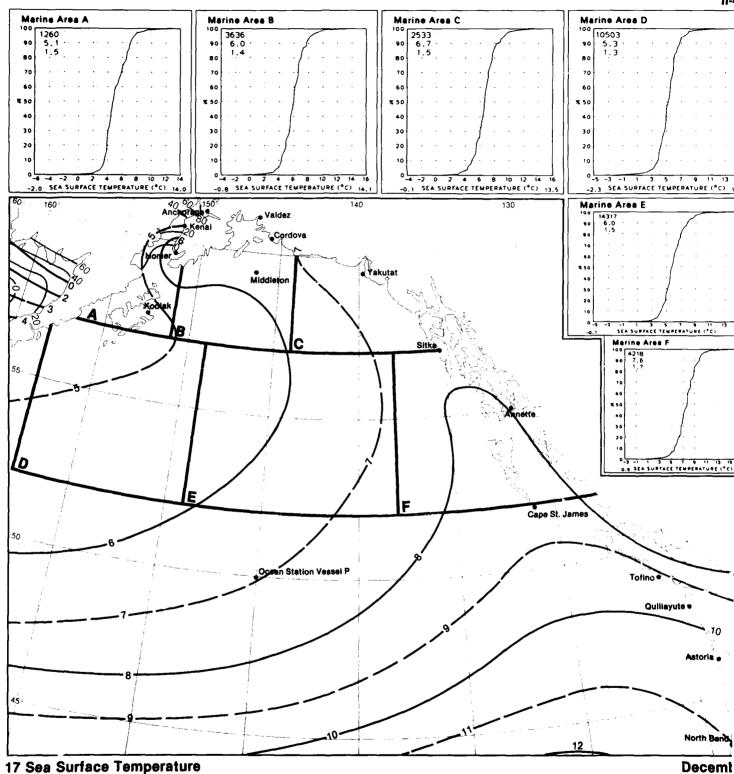


ptember 17 Sea Surface Temperature

Mean Sea Surface Temperature and Ice of Any Kind







17 Sea Surface Temperature Mean Sea Surface Temperature and Ice of Any Kind

## Map 18. Wave height ≤3 feet and ice concentration ≥5/10ths

BLACK LINE - Percent frequency of wave height ≤3 feet (1 meter).

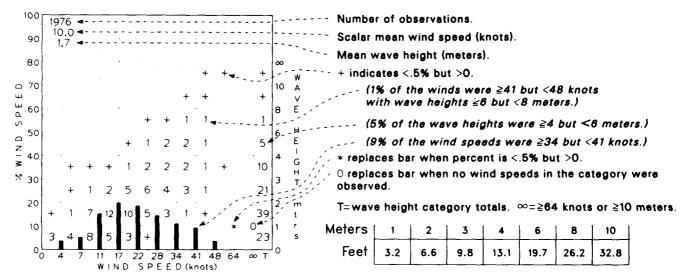
BLUE LINE - Percent frequency of ice concentration ≥5/10ths.

Albers Equal-Area Conic Projection

## Graphs: Wave height/wind speed

Wind speed frequency: Bars are percentages for each wind speed category.

Wave height frequency: Numbers are percentages of wave height for various wind speeds.

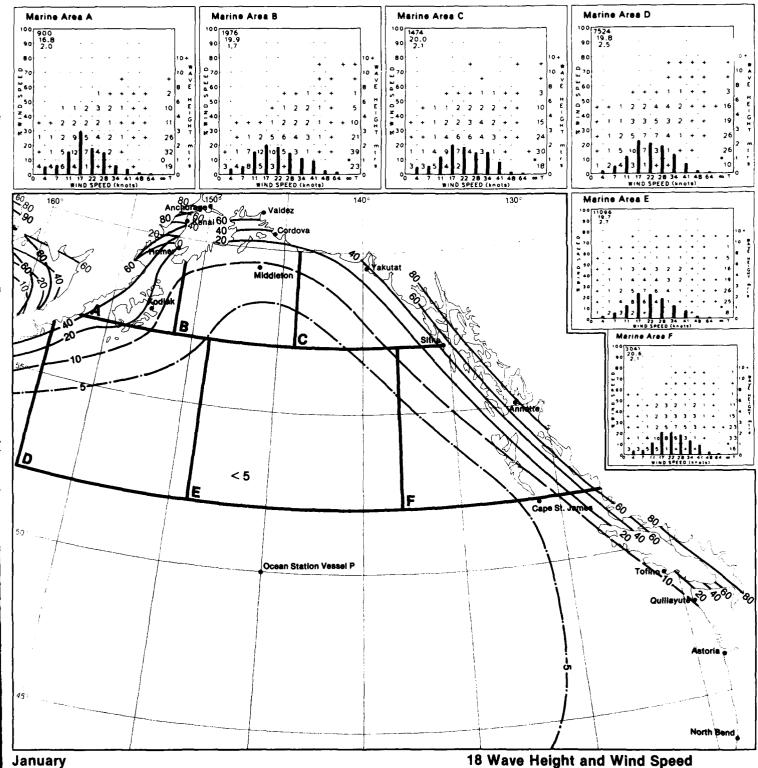


Wave heights have been recorded in a consistent quantitative code only since the late 1940's. The reluctance of many observers to take wave observations in the earlier years and the difficulty in estimating waves, especially in confused seas, make wave observations one of the least commonly observed elements. The observations are also subject to biases in wave characteristics. A correction factor of approximately 10% was suggested by Hogben and Lumb (1967) and has been verified by preliminary work at NCDC where Quayle (1980) found that generally the heights are too low, the periods too short, and sea-swell discrimination poor. The data in this study have not been adjusted for the suspected biases. The marine observations were processed through quality control procedure where an internal check was made between wind speed and sea height. The sea and swell data were then arrayed and suspicious outliers deleted. The higher of the sea wave or swell was selected for summarization. If the heights were equal, the wave with the longer period was selected.

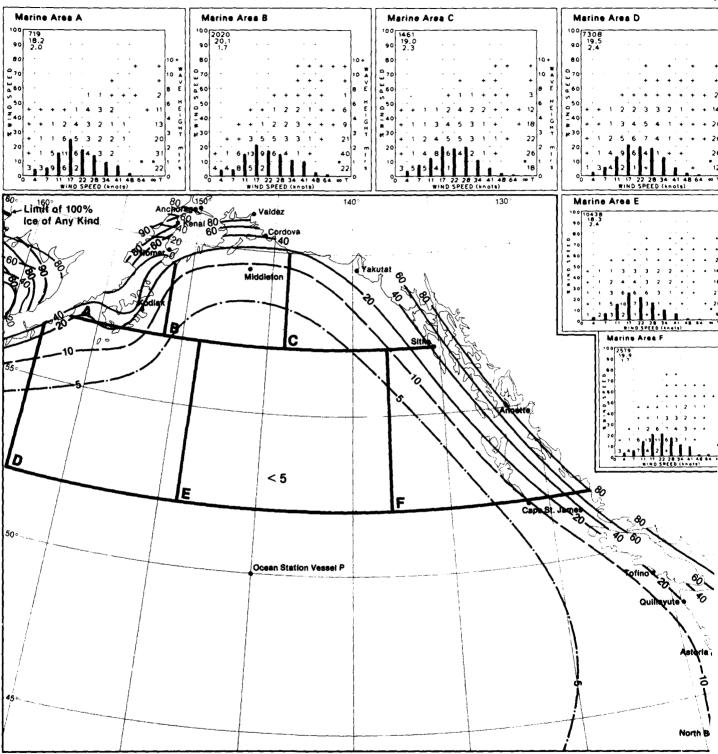
Wave height isopleth presentations in Sets 18 and 19 are for a generally nonhazardous sea condition; i.e., wave heights less than 3 feet and 8 feet, respectively. Isopleth presentations in Set 20 define much more hazardous sea conditions; i.e., wave heights equal to or greater than 12 and 20 feet. Refer to the texts of Sets 14 and 18-21 for complete information on waves, and to the introductory text of Section II for sea ice information.

18 Legend

Legend 11



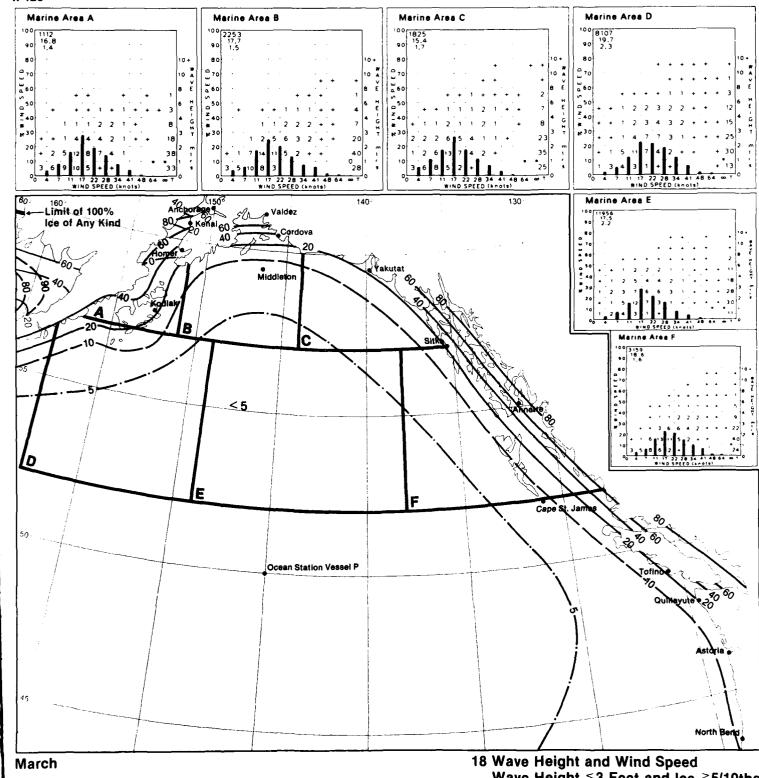
18 Wave Height and Wind Speed Wave Height ≦3 Feet and Ice ≧5/10ths



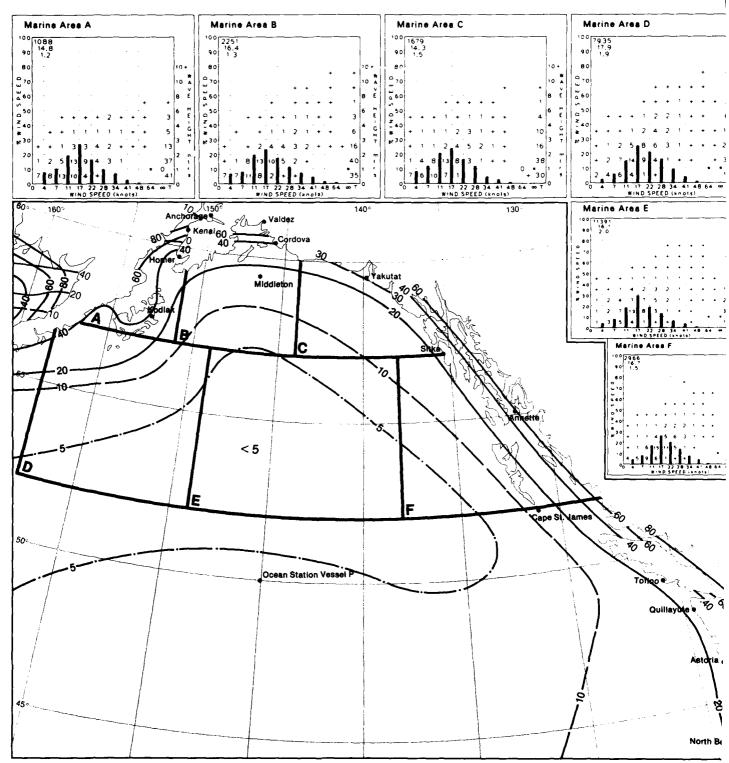
18 Wave Height and Wind Speed
Wave Height ≦3 Feet and Ice ≧5/10ths

Feb

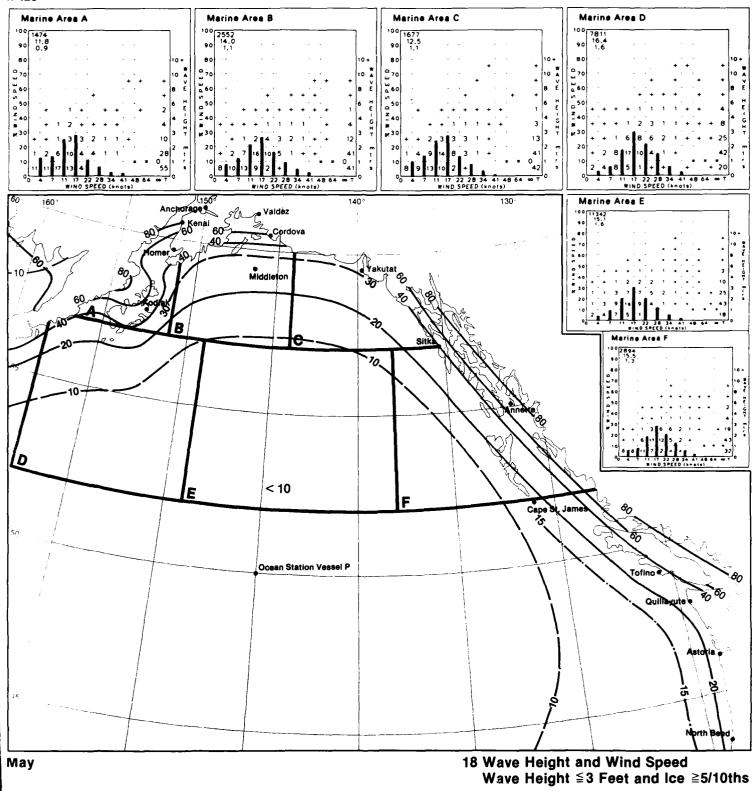
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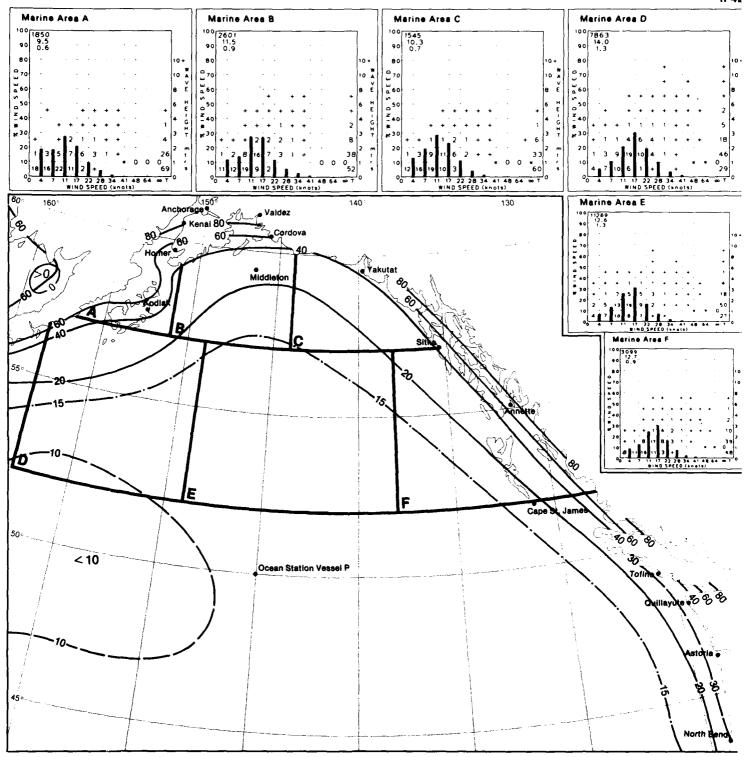
18 Wave Height and Wind Speed
Wave Height ≦3 Feet and Ice ≩5/10ths



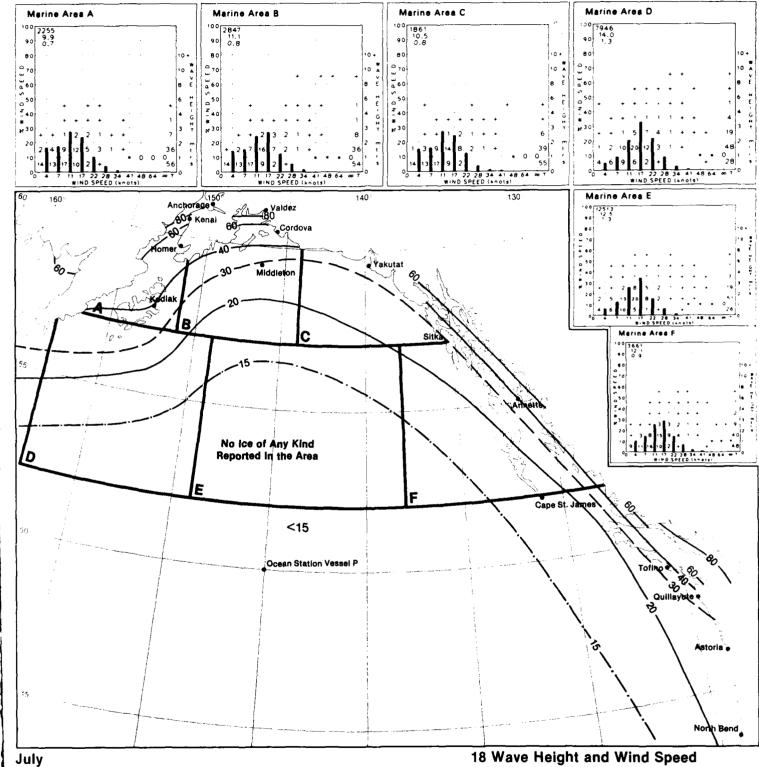
18 Wave Height and Wind Speed
Wave Height ≦3 Feet and Ice ≥5/10ths



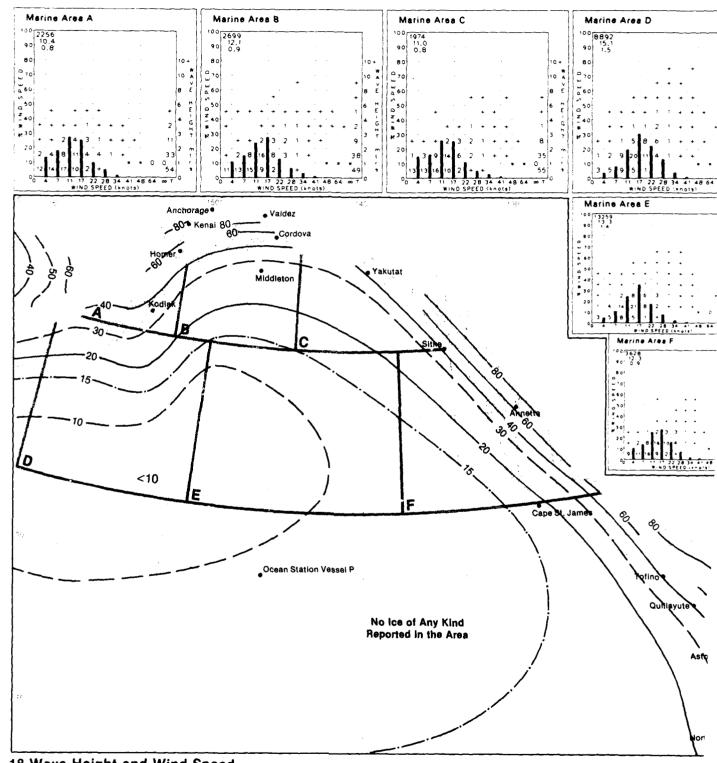
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18 Wave Height and Wind Speed Wave Height ≦3 Feet and Ice ≧5/10ths



18 Wave Height and Wind Speed Wave Height ≦3 Feet and Ice ≧5/10ths



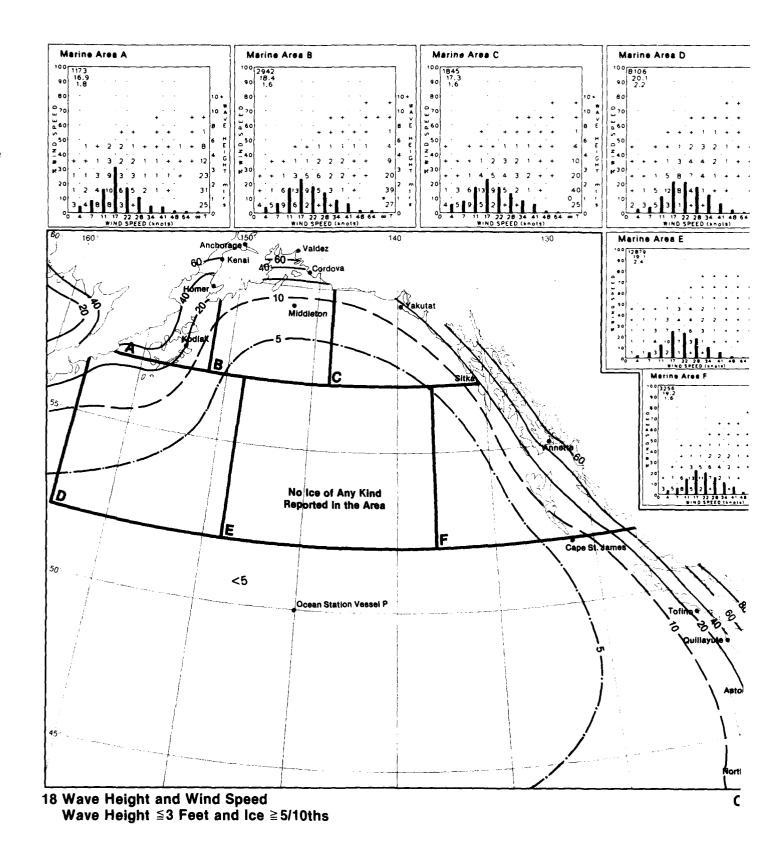
18 Wave Height and Wind Speed Wave Height ≦3 Feet and Ice ≧5/10ths

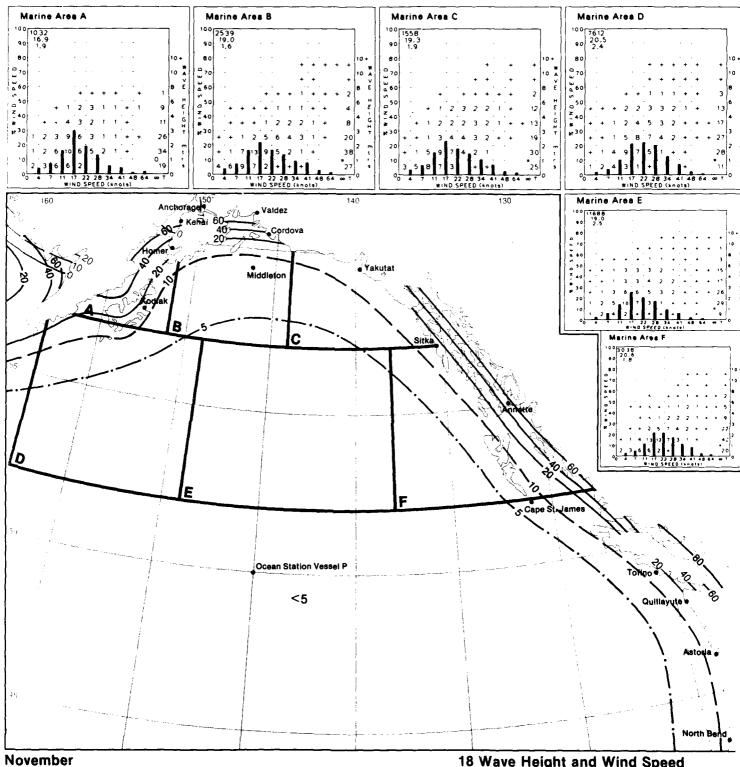
September

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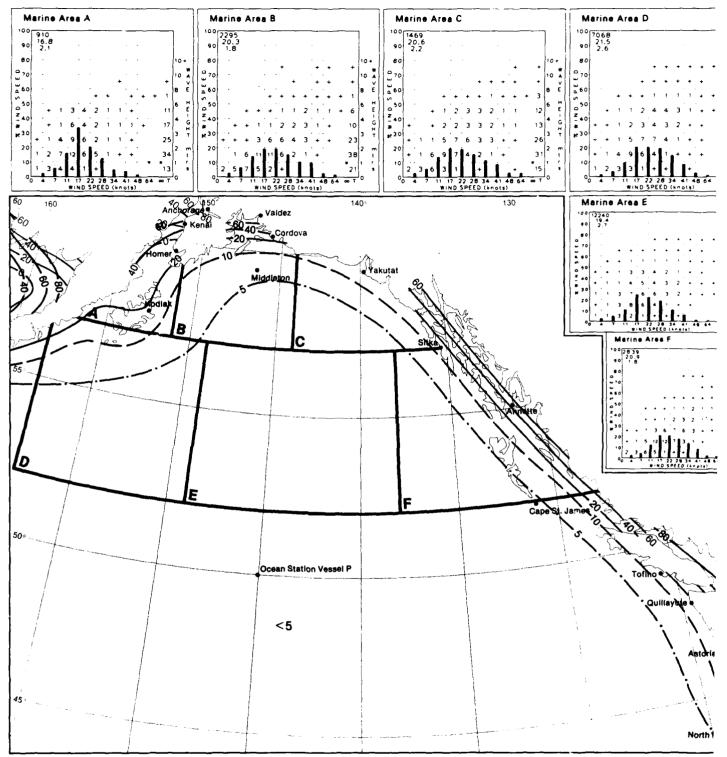
18 Wave Height and Wind Speed Wave Height ≦3 Feet and Ice ≧5/10th

North Be





18 Wave Height and Wind Speed Wave Height ≦3 Feet and Ice ≧5/10th



18 Wave Height and Wind Speed Wave Height ≦3 Feet and Ice ≥5/10ths

Dec

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# Map 19. Wave height <8 feet and ice thickness ≥8 feet

BLACK LINE - Percent frequency of wave height <8 feet (2.5 meters).

BLUE LINE - Percent frequency of ice thickness ≥8 feet (multi-year ice).

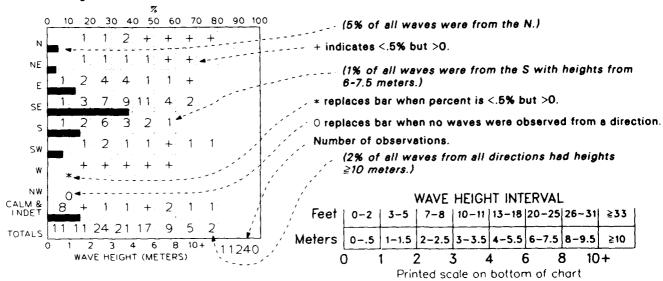
Albers Equal-Area Conic Projection

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### Graphs: Wave height/direction

Direction frequency (top scale): Bars represent percent frequency of waves from each direction.

Height frequency (bottom scale). Printed figures represent percent frequency of wave heights observed from each direction.



The observer aboard ship determines and records the period and height of wind waves (sea); and the direction, period height of swell waves. Sea waves are waves raised by the local wind and are assumed to have the same direction as the Swell waves are waves not raised by the local wind, but rather by distant wind systems or by winds that have sinced ceablow. Swell waves characteristically exhibit more regular and longer periods, and have flatter crests than wind waves their generating area (fetch). Sea and swell waves occur singly or in manifold combination from which they can sometime separated only with difficulty.

Indeterminate directions are combined with calms in the direction scale of the graph (they can be distinguished I sulting the sea height scale). The number of observations noted on the graphs is from the higher of sea or swell when b reported; if the heights were equal, then the one with the longer period was selected. If only one wave was reported (sea or then that value was used. Refer to the texts of Sets 14 and 18-21 for complete information on waves, and to the introduction of Section II for sea ice information.

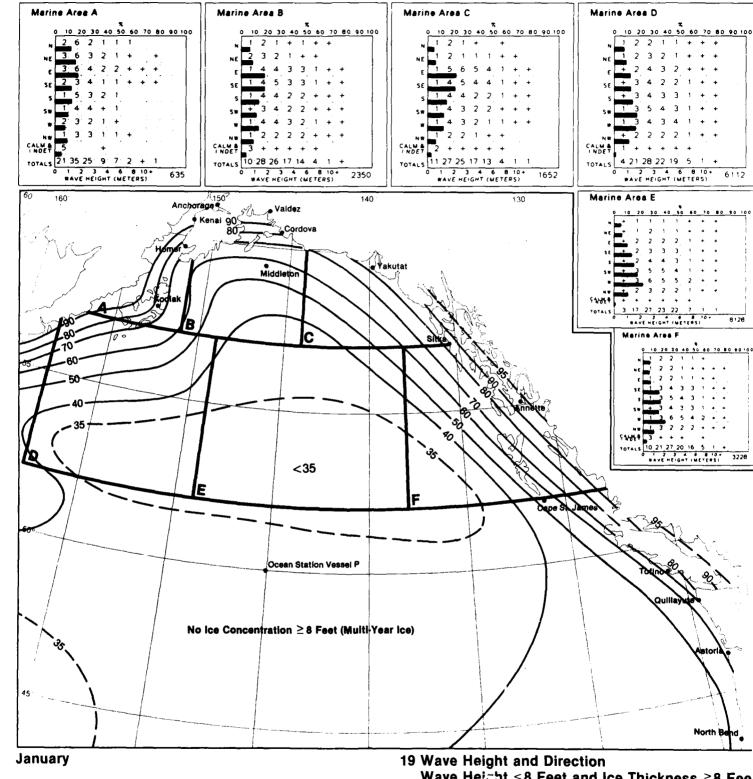
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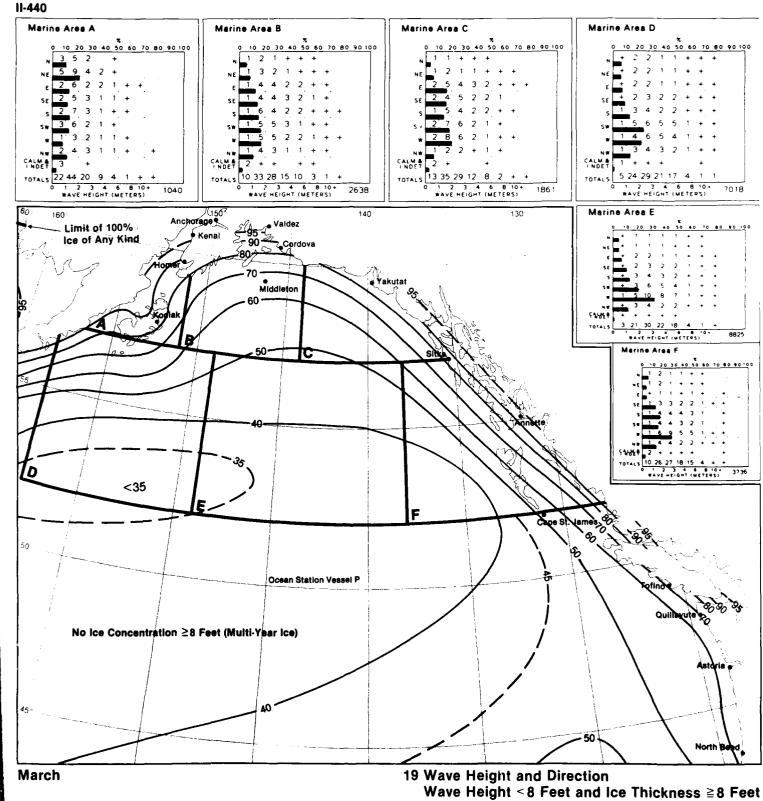
19



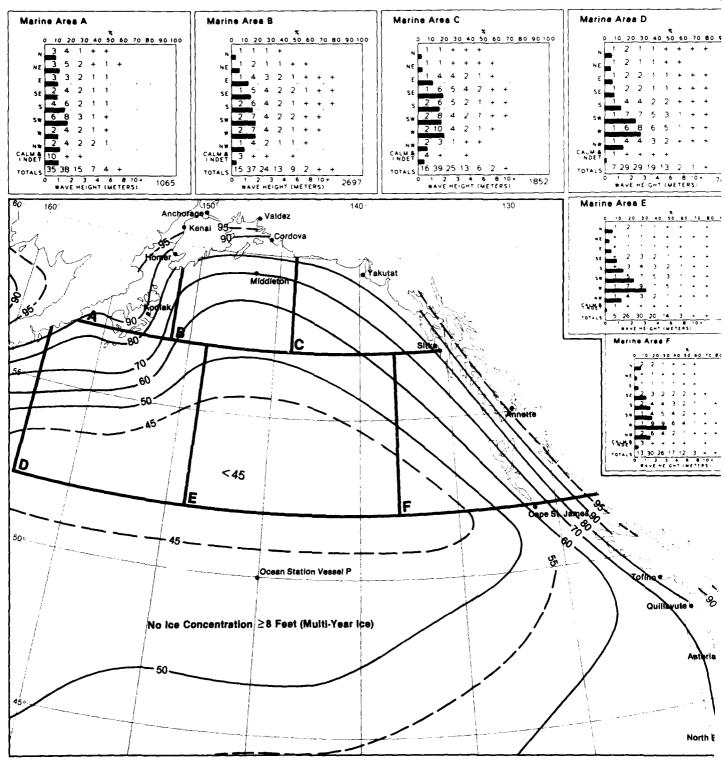
Wave Height <8 Feet and Ice Thickness ≥8 Fee

19 Wave Height and Direction
Wave Height <8 Feet and Ice Thickness ≥8 Feet

1

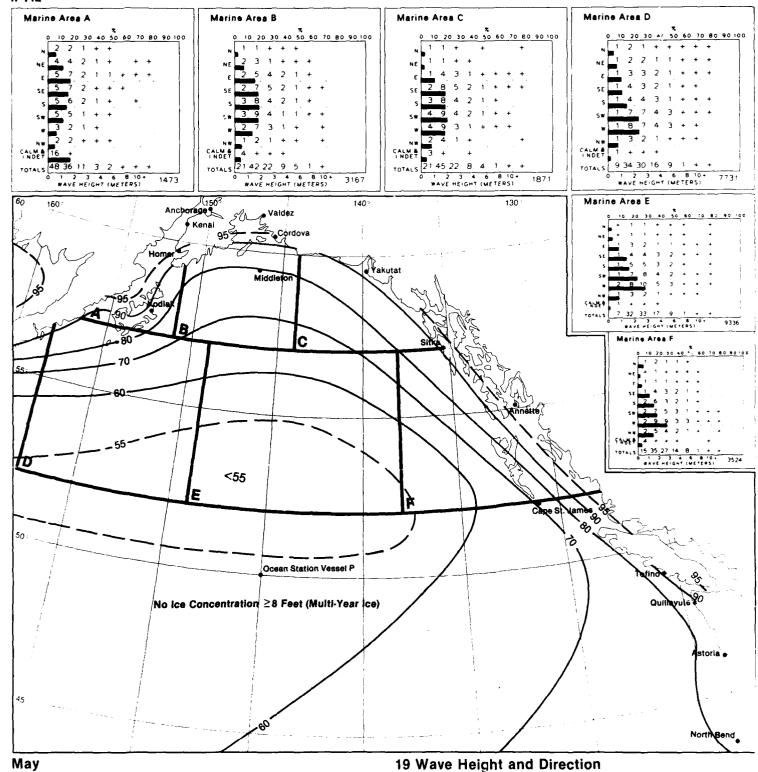


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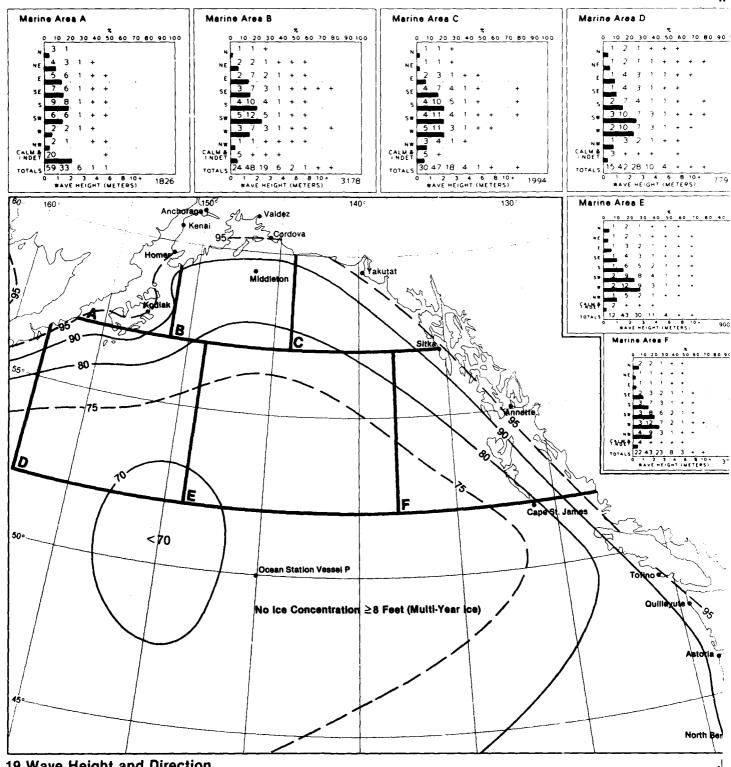


19 Wave Height and Direction
Wave Height <8 Feet and Ice Thickness ≥8 Feet

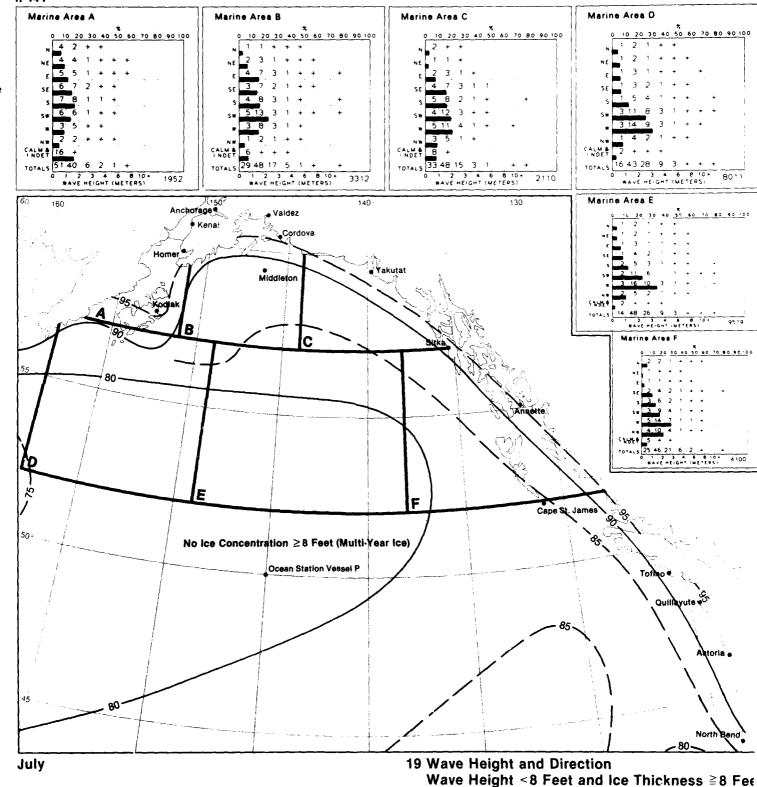
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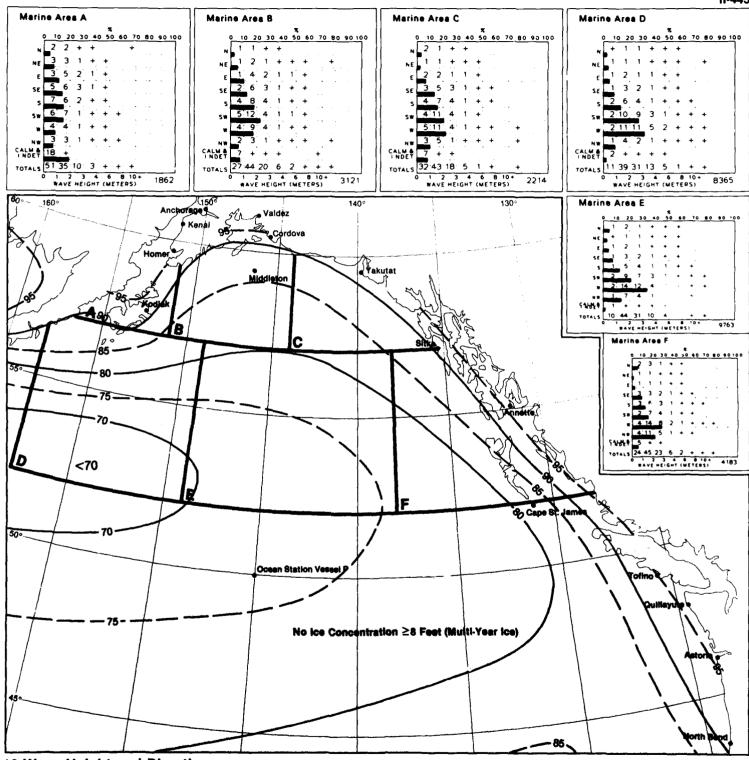


Wave Height < 8 Feet and Ice Thickness ≥8 Feet



19 Wave Height and Direction
Wave Height <8 Feet and Ice Thickness ≥8 Feet



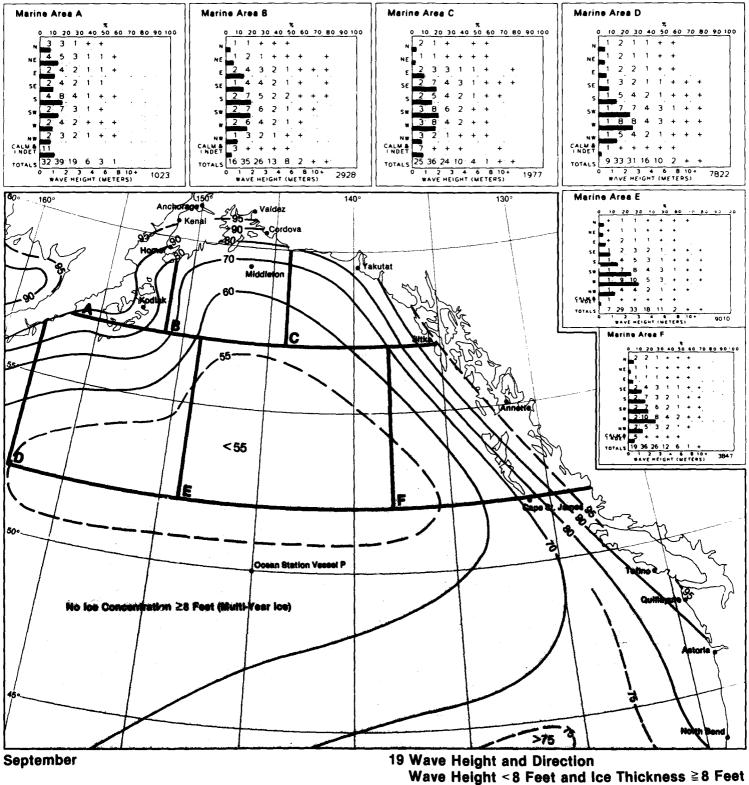


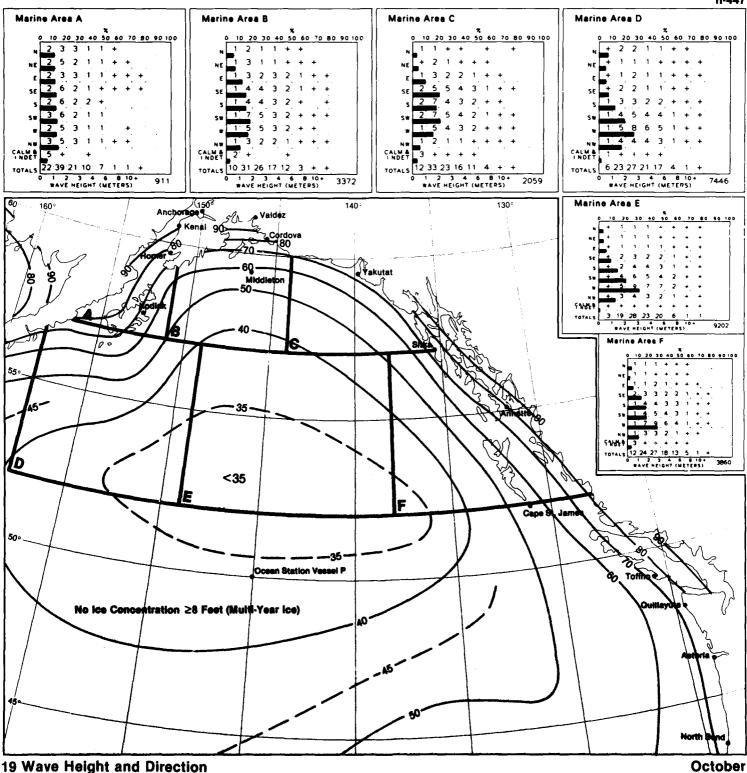
19 Wave Height and Direction
Wave Height <8 Feet and Ice Thickness ≥8 Feet

August

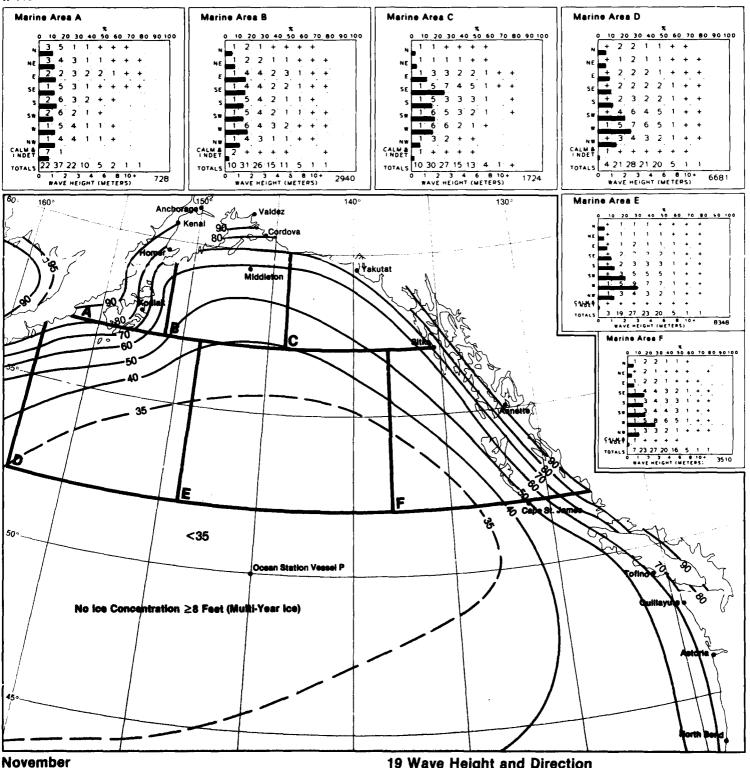
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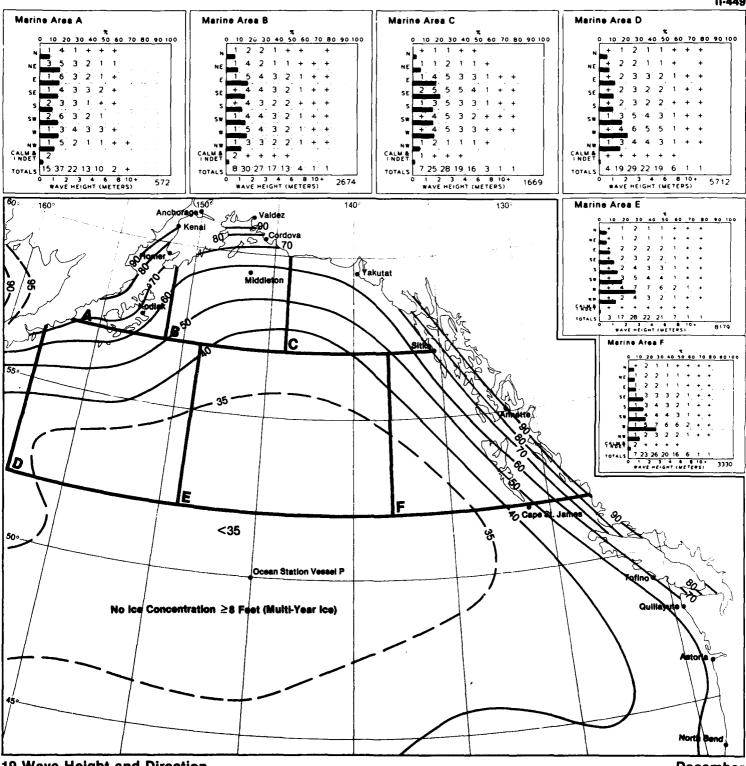




19 Wave Height and Direction
Wave Height <8 Feet and Ice Thickness ≥8 Feet



ovember 19 Wave Height and Direction Wave Height <8 Feet and Ice Thickness ≧8 Feet



19 Wave Height and Direction
Wave Height <8 Feet and Ice Thickness ≥8 Feet

December

## Map 20. Wave height ≥12 and ≥20 feet

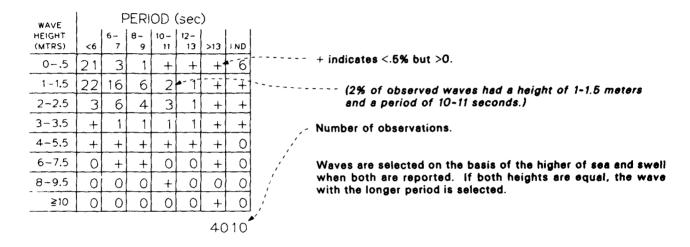
BLACK LINE – Percent frequency of wave height  $\geq$ 12 feet ( $\geq$ 3.5 meters).

BLUE LINE - Percent frequency of wave height ≥20 feet (≥6 meters).

Albers Equal—Area Conic Projection

### Graphs: Wave height/period

Percent frequency of occurrence of wave period and height.



Wave period is the interval in seconds between the passage of two successive crests or troughs of well-formed waves past a fixed point. Waves in the same system usually occur in a sequence of a few large, well-formed waves followed by an interval in which only small and poorly-formed waves occur, and another series of well-formed waves, etc. Observers aboard ship determine the values of wave height, period, and direction generally using only the well-formed waves and ignoring poorly-formed waves. To describe a similar sea state from a measured wave record, a statistical approach is used to describe the significant wave height (H 1/3) which is the average of the highest one-third of the measured waves. This roughly approximates the characteristic height observed visually from aboard ship. To determine the period of wind waves or swell, the observer needs only to select a distinctive patch of foam or a small floating object at some distance from the ship. As the object falls astern, a new one is selected. The elapsed time is determined to the nearest second between the instant when the object is on the crest of the first and of the last well-formed wave in the group. Noting the number of crests that pass under the object during the interval permits computation of the average period. An experienced observer needs only to observe a few representative wave "sets" to derive the average period.

The number of observations noted on the graphs is that of those observations reporting both wave height and period. The wave height isopleth presentations are for a generally hazardous sea condition (wave heights equal to or greater than 12 feet). Refer to the texts of Sets 14 and 18-21 for complete information on waves.

20 Legend

Legend 20

### 11-452

Merine A	•	A						_
PAVE	l	P			(se	c)		
MEIGHT (MT#S)	<6	7	•	10 -	12-	>13		
05	11	+					10	
1-1.5	23	9	2	1	+	+	+	
2-2.5	9	8	4	3	+	1	1	
3 - 3.5	1	3	1	2	1	$\Box$	+	
4-5.5	1	1	2	1	1	+	+	
6-7.5	+	+	+		+	+	+	
8-9.5		+	+		+			
≩10								
						-	35	

WAVE		Р	ERI	OD	(se	c)	
HEIGHT (MTRS)	<6	6-,	8 -	10-	12-	>13	. 40
05	5	1	+	+			4
1-1.5	15	7	3	1	1	+	1
2-2.5	7	10	4	2	1	+	1
3-3.5	3	6	3	2	1	+	1
4-5.5	2	4	4	2	1	+	1
6-7.5	+	1	1	1	+	+	1
8-9.5		+	+	+	+		+
≥10							

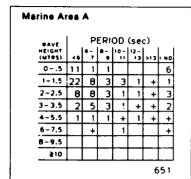
*AVE		PERIOD (sec)								
HEIGHT (MTRS)	<6	<6 7 9 10 12 3 >1								
05	7	+	+	1			3			
1-1.5	12	7	4	2	+	+	2			
2-2.5	7	9	6	2	1	+	1			
3~3.5	2	6	5	2	1	+	1			
4-5.5	1	3	5	2	1	+	2			
6-7.5	+	1	1	1	+	+	+			
8-9.5	Г	+		+	+	+				
<b>≩</b> 10										

WAVE		₽	ERI	QQ	(se	c)	
HEIGHT	<6	6-,	8 - 9	10-	12-	>13	. NO
05	3	+	+	+			1
1-1.5	11	6	2	1	+	+	1
2-2.5	7	11	5	2	1	+	2
3 - 3.5	2	8	6	3	1	+	3
4-5.5	1	4	5	4	1	+	3
6-7.5	+	1	1	_1	1	+	+
8-9.5		+	+	+	+	+	+
≩10							

60 160 Anchora	140°	130°	Marine Area E
	enai 5 Cordova  Middleton  Vakutat	STE COS	PERIOD (sec)    10
Le Po	C	Since	Marine Area F
10	>15 >40	A Segments	PERIOD (sec)  ##16971 - 4 - 7 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1
		F	<del></del>
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January

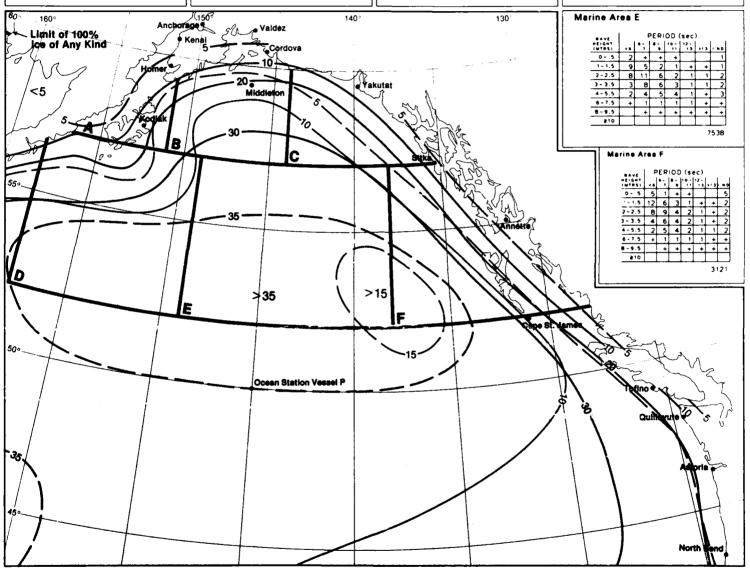
20 Wave Height and Period Wave Height ≧12 and ≧20 Feet



BAVE	l	Ρ	ERI	OD	(se	c)	
HEIGHT (MTRS)	< 6	6 - 7	8 - 9	10 - 11	12-	>13	I NO
05	4	1	+	+			3
1-1.5	17	6	3	2	1	+	1
2-2.5	8	8	4	2	1	1	2
3-3.5	4	6	3	2	+	+	2
4-5.5	2	4	3	2	1	+	1
6-7.5	+	1	1	1	+	+	+
8-9.5		+	+	+		+	+
≩10							

WAVE	1	PERIOD (sec)								
HEIGHT (MTRS)	<6	<6 7 9 11 13 >13 I ND								
05	5	+	+	+			3			
1-1.5	12	7	4	1	1	+	3			
2-2.5	6	8	5	2	1	+	2			
3 - 3.5	4	7	4	2	+	+	1			
4-5.5	2	4	4	2	1	+	1			
6-7.5	+	+	2	1	+	+	+			
B-9.5		+	+	+	+					
≥10										

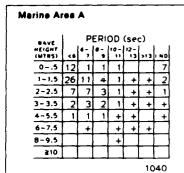
WAVE	l	PERIOD (sec)									
HEIGHT (MTRS)	<6	C6 7 9 11 13 313 NO									
05	3	+	+	+			1				
1-1.5	10	6	2	1	+	+	_1				
2-2.5	7	11	5	2	1	+	2				
3-3.5	2	8	6	3	1	+	2				
4-5.5	1	4	6	5	1	1	3				
6-7.5	+	1	1	1	+	+	1				
8-9.5		+	+	+	+	+	+				
≥10											



20 Wave Height and Period Wave Height ≧12 and ≧20 Feet

**February** 

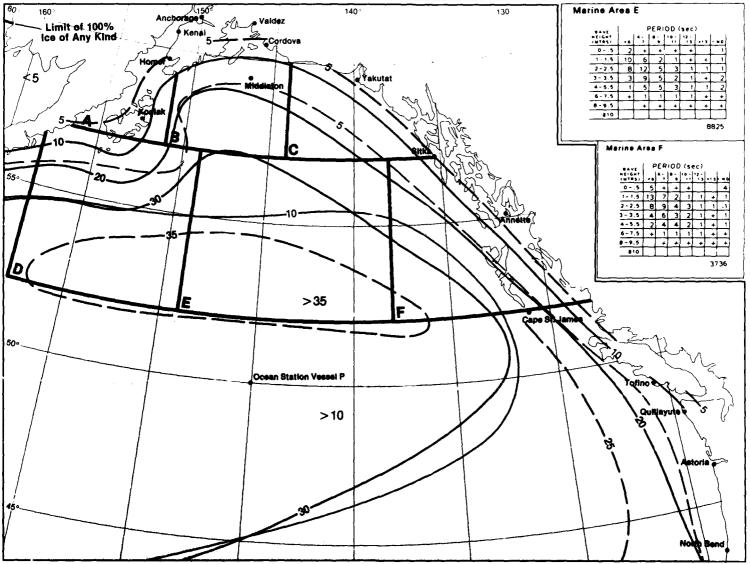
11-454



Marine A		В					
WAVE	1	P		00			
HEIGHT (MTRS)	< 6	6-,	•-	10 - 11	12-	>13	ND
0~.5	6	1	+	+			3
1-1,5	17	10	3	1	1	+	1
2-2.5	10	9	5	2	1	1	1
3 - 3.5	4	6	3	1	+	+	1
4-5.5	1	3	3	1	+	+	
6-7.5	+	1	+	1	+	+	+
8-9.5		+	+	+	+		+
≩10							
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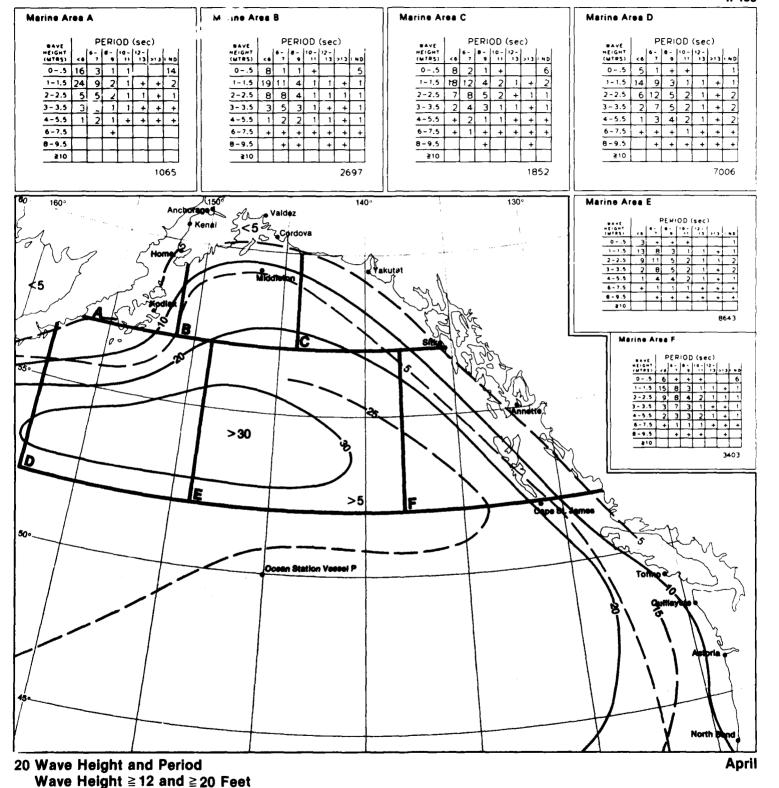
Marine A	•	С	-				
WAVE	ĺ	P	_	OD			
HEIGHT (MTRS)	< 6	6-,	0 - 9	10 -	12-	>13	N D
05	7	1	1	1			4
!-1.5	17	11	4	1	1	+	2
2-2.5	8	10	5	3	1	1	1
3 - 3.5	3	4	2	1	+	+	1
4-5.5	1	2	3	~	+	+	1
6-7.5	+	+	1	+	+	+	+
8-9.5		+	+	+	+	+	
≥10							
						18	361

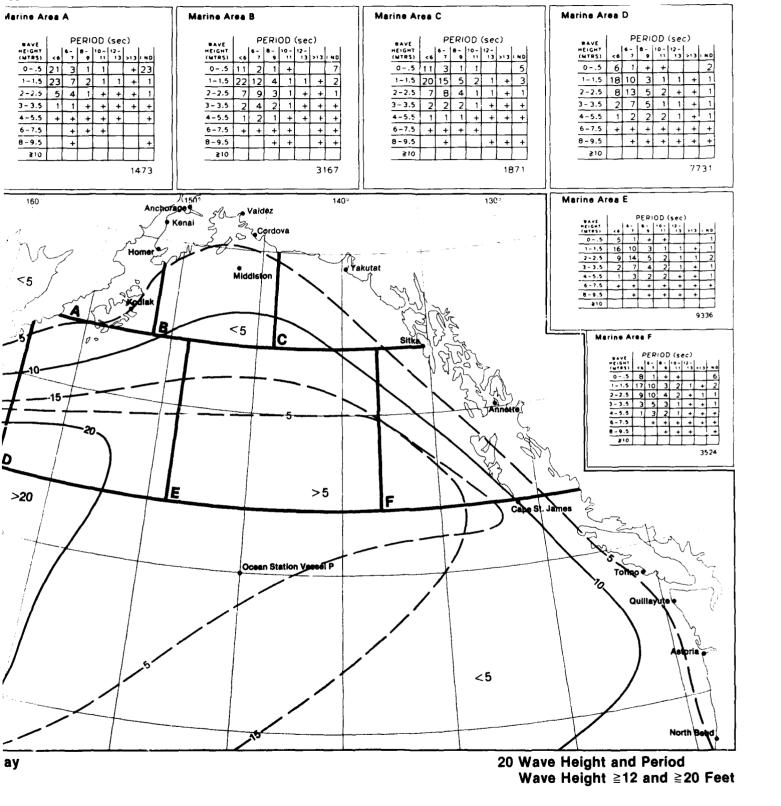
WAVE	ł	ρ	ERI	OD	(\$e	c)	
HEIGHT (MTRS)	<6	6-,	8 - 9	10 -	12-	213	
05	3	+	+	+			_1
1-1.5	12	7	2	1	+	+	_ 1
2-2.5	8	11	5	2	1	+	2
3-3.5	2	8	6	3	1	+	2
4-5.5	1	4	5	4	1	1	2
6 - 7.5	+	1	1	1	+	+	+
8-9.5		+	+	+	+	+	+
≥10							

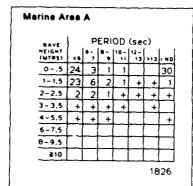


March

20 Wave Height and Period Wave Height ≧12 and ≧20 Feet



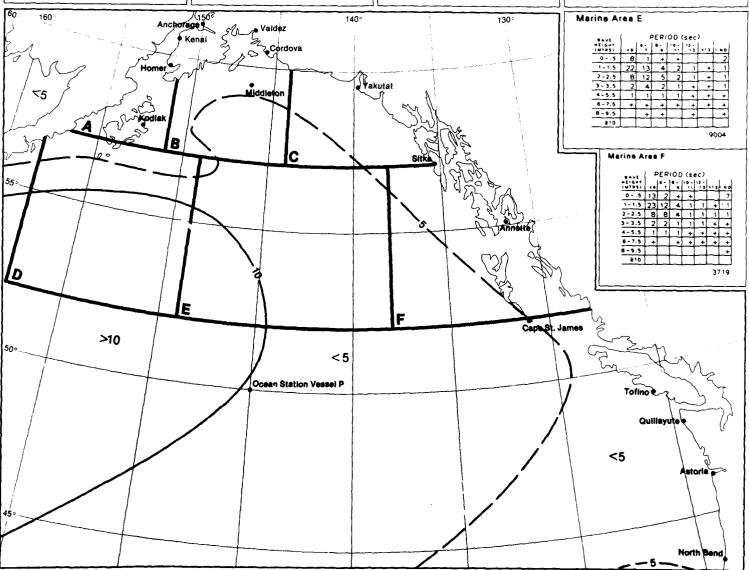




WAVE	1	PERIOD (sec)								
HEIGHT (MTRS)	<6	<6 7 9 11 13 >13								
05	14	3	1	1			7			
1-1.5	27	13	4	1	1	+	1			
2-2.5	7	7	3	1	+	1	1			
3 - 3.5	1	2	1	1	+	+	+			
4-5.5	+	+	+	+	+	+	+			
6-7.5		+		+	+	+	+			
8-9.5		+								
≩10										

WAVE	l	PERIOD (sec)									
HEIGHT (MTRS)	<6	6-,	0 ~ 9	10 -	12-	>13	0				
05	16	4	1	1			8				
1-1.5	21	16	6	_1	1	+	1				
2+2.5	4	7	3	2	+	+	1				
3~3.5	1	1	. 1	1	+	+	+				
4-5.5	+	+	+	+	+	+	+				
6-7.5		+									
B-9.5											
≩10											

WAVE	J	Ρ	ERI	OD	(se	c)			
HEIGHT (MTRS)	< 6	6-	8-	10-	12 -	>13	ם מאיל		
05	9	1	+	+			4		
1-1.5	21	13	4	_ 1	1	+	7		
2-2.5	7	13	5	1	1	+	-		
3-3.5	1	1 4 3 1 + + 1							
4-5.5	+	1	1	1	+	+	+		
6-7.5	+	+	+	+		+	+		
8-9.5		+	+				+		
≥10									



20 Wave Height and Period Wave Height ≧12 and ≧20 Feet

June

#### 11-458

Marine A	104	A					
WAVE	l	P	ERI	OD		c)	
HEIGHT (MTRS)	<	•,	•-	10,-	12-	>13	
05	24	2	1	1			24
1-1.5	28	8	1	1	-	+	1
2-2.5	3	2	+	+	+	+	+
3 - 3.5	+	1	+	+			+
4-5.5	+	+	+	+	+	+	П
6-7.5						+	$\Box$
8-9.5							П
≩10							П
						19	52

BAYE		PERIOD (sec)									
HEIGHT (MTRS)	<6	6-	8-	10-	12-	>13					
05	17	2	1	1		+	8				
1-1.5	26	14	4	1	1	+	1				
2-2.5	6	6	2	1	+	1	1				
3-3.5	1	2	1	+	+	+	+				
4-5.5	+	1	+	+	+	+	+				
6-7.5		+	+	+							
8-9.5											
≩10											

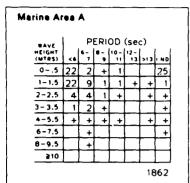
BAVE	J	PERIOD (sec)									
HEIGHT (MTRS)	< 6	6-,	8-	10-	12-	>13					
05	18	3	1	+			12				
1-1,5	25	14	4	2	- 1	+	2				
2-2.5	5	5	3	1	+	+	1				
3 – 3.5	1	1	1	+	+	+	+				
4-5.5	+	+	+	+	+		+				
6-7.5											
8-9.5		+									
≩10											

Marine A		D									
WAVE	J	PERIOD (sec)									
HEIGHT (MTRS)	<6	6-	8 - 9	10 -	12-	>13	I ND				
05	10	2	+	+			4				
1-1.5	23	13	4	1	1	+	2				
2-2.5	8	13	4	1	+	+	1				
3 - 3.5	1	4	2	1	+	+	1				
4-5.5	+	1	1	+	+	+	1				
6-7.5	+	+	+	+	+		+				
8-9.5			+		+						
≥10											
						80	11				

		J [	
Homer Homer	Kenal S Z Cordova	130°	Marine Area E    PERIOD (sec)
55° D		Strike St	Merine Area F    PERIOD (sec)
	Cosen Station Vessel P	F Cares	Tofine &
			Aptoria p

July

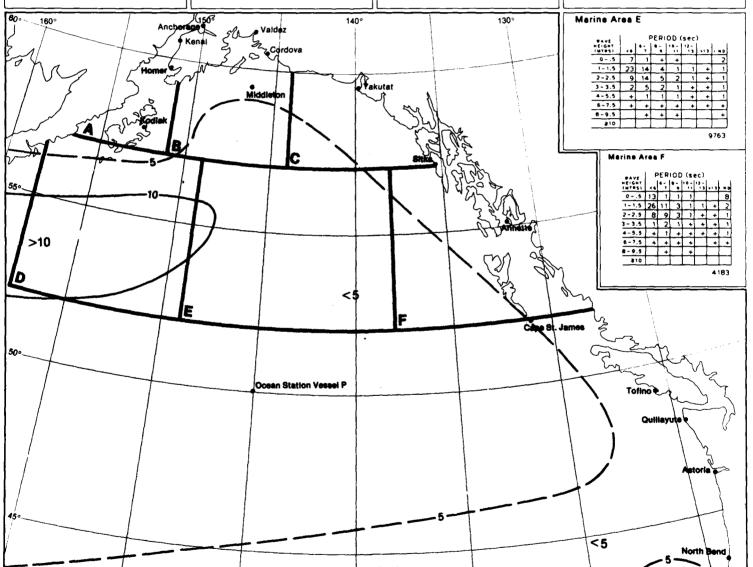
20 Wave Height and Period Wave Height ≧ 12 and ≧ 20 Feet



WAVE	1	PERIOD (sec)								
HEIGHT (MTRS)	<6	<6 7 9 11 13 >13 I N								
05	15	2		+			9			
1-1.5	25	12	3	1	1	+	1			
2-2.5	7	7	2	1	1	1	1			
3 - 3.5	2	2	١	+	+	+	+			
4-5.5	1	1	+	+	+	+	+			
6-7.5	+		+	+	+	+	+			
8-9.5							+			
≩10										

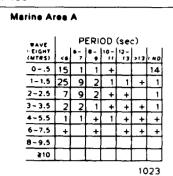
Marine A	•	С									
WAVE	l	P	_	OD		c)					
HEIGHT (MTRS)	<6	C6 7 9 11 13 313 NO									
05	17	3	1	+			10				
1-1.5	22	13	4	1	1	+	2				
2-2.5	_5	8	3	1	+	+	1				
3 - 3.5	1	2	1	+	+	+	+				
4-5.5	+	+	+	+	+	+	+				
6-7.5		+	+		+	+	+				
8-9.5											
≧10											
						22	14				

WAVE		PERIOD (sec)									
HEIGHT (MTRS)	< 6	6-	8 - 9	10 -	17-	   >1 3	0				
05	7	1	+	+			3				
1-1.5	20	12	3	1	+	+	1				
2-2.5	8	15	5	2	+	+	1				
3-3.5	2	6	3	1	+	+	1				
4-5.5	+	2	1	1	+	+	1				
6-7.5	+	+	+	+	+	+	+				
8-9.5			+	+		+	+				
≥10											



20 Wave Height and Period Wave Height ≧12 and ≧20 Feet

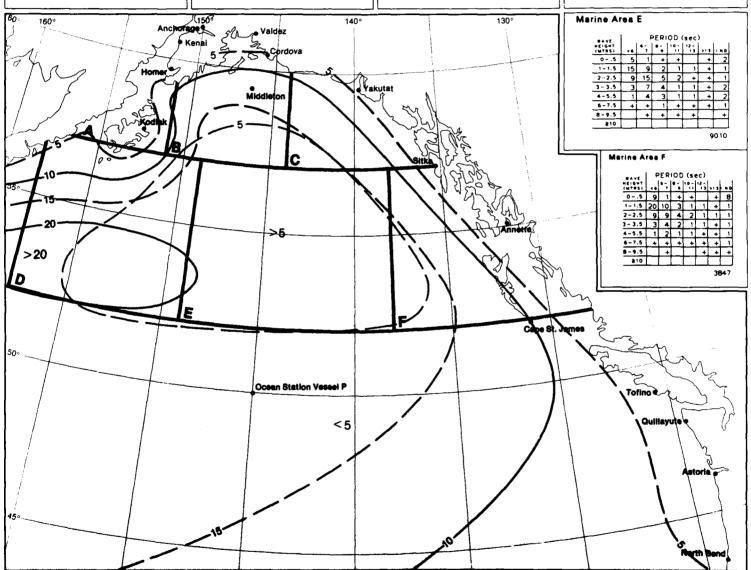
**August** 



WAVE		PERIOD (sec)								
HEIGHT (MTRS)	<6	6-,	8 - 9	10-	12-	>13	, NE			
05	9	1	+	+			5			
1-1.5	20	9	2	1	1	+	1			
2-2.5	9	9	4	1	_1	1	2			
3-3.5	3	5	2	_1	+	+	1			
4-5.5	1	2	2	1	+	+	1			
6-7.5	+	+	+	+	+	+	+			
B-9.5		+	+			+				
₹10										

Marin	• Aı	08	С										
**	VE	l	PcRIOD (sec)										
	GHT PS)	<6	6-,	8-	10 -	17-	>13	I ND					
0	5	12	2	+	+			11					
1-	1.5	18	11	3	1	1	+	2					
2-	2.5	7	9	4	2	+	1	1					
3 -	3.5	2	2	2	2	+	+	1					
4-	5.5	1	1	1	+	+	+	1					
6	7,5	+	+	+	+	+	+	1					
8-	9.5			+	+			+					
	≧10												
							19	77					

WAVE	i	PERIOD (sec)								
HEIGHT (MTRS)	< 6	6-,	e - •	10-	12-	>13				
05	6	1	+	+			2			
1-1.5	17	10	2		+	+	1			
2-2.5	7	15	5	2	+	+	1			
3 - 3.5	2	7	4	2	1	+	1			
4-5.5	1	3	3	1	1	+	2			
6-7.5	+	+	+	+	+	+	+			
8-9.5		+	+	+	+	+	+			
≥10										



September

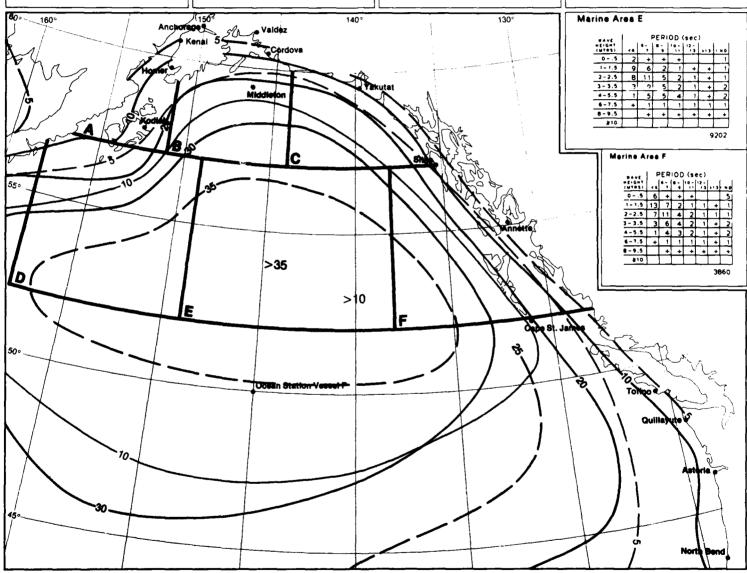
20 Wave Height and Period Wave Height ≧12 and ≧20 Feet

WAVE		PERIOD (sec					
HEIGHT (MTRS)	<	6- 7	e- •	10-	12-	>13	
05	13	2	1	+			6
1-1.5	24	10	2	2	+	+	1
2-2.5	8	7	3	1	+	1	1
3-3.5	2	4	2	1	+		1
4-5.5	2	2	1	1	1	+	+
6-7.5		+	+	+		+	+
8-9.5		+	+	+			+
≩10							

WAVE	1	PERIOD (sec)								
HEIGHT (MTRS)	<6	6-,	8-	10 - 11	12-	>13	. 40			
05	5	1	+	+			3			
1-1.5	17	В	3	1	+	+	1			
2-2.5	8	9	4	2	1	+	1			
3-3.5	3	7	3	2	1	+	٦,			
4-5.5	2	4	3	2	1	+	1			
6-7.5	+	1	1	1	1	+	1			
8-9.5		+	+	+	+	+	+			
≩10										

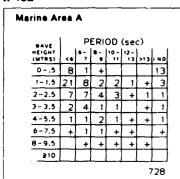
Marine Ar	.08	С							
WAVE	PERIOD (sec)								
HEIGHT (MTRS)	<6	6 - 7	8 - 9	10 -	17-	>13	I ND		
05	6	1	1	+			5		
1-1.5	13	10	4	-	+	+	3		
2-2.5	6	8	4	2	_1		2		
3-3.5	2	5	4	2	1	+	1		
4-5.5	1	3	2	2	+	+	1		
6-7.5	+	1	1	1	+	+	_ 1		
8-9.5		+		+	+		+		
≩10									
						20	59		

BAVE	1	PERIOD (sec)									
HEIGHT (MTRS)	<6	6-	8 -	10-	12-	>13					
05	4	1	+	+			2				
1-1.5	13	7	2	1	+	+	+				
2-2.5	8	12	4	2	+	+	1				
3 - 3.5	2	8	6	2	1	+	1				
4-5.5	1	5	5	3	1	+	2				
6 - 7.5	+	1	1	1	1	+	1				
8-9.5		+	+	+	+	+	+				
≩10				_							



20 Wave Height and Period Wave Height ≥ 12 and ≥ 20 Feet

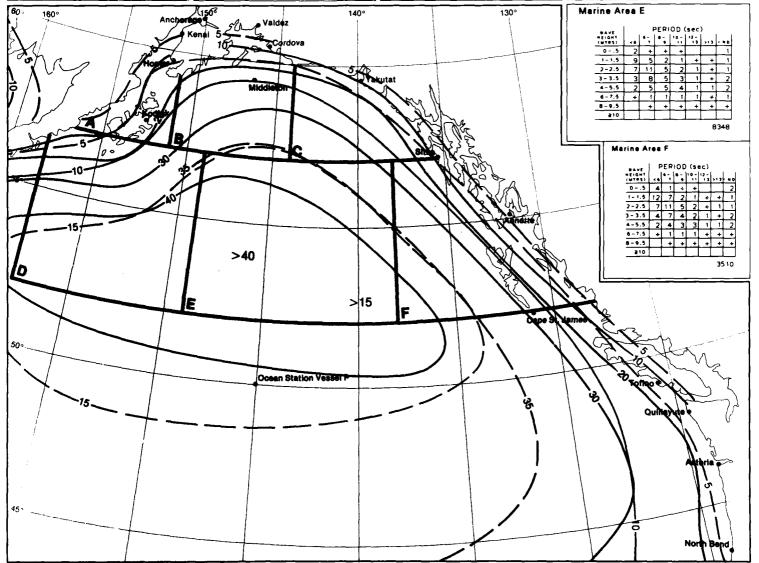
**October** 



WAVE	PERIOD (sec						PERIOD (sec)								
HEIGHT (MTRS)	<6	6~	8- 9	10-	12-		. 40								
05	5	1	+	+			4								
1-1.5	17	7	3	1	1	+	2								
2-2.5	7	9	4	2	+	1	_2								
3-3.5	3	5	3	1	+	+	2								
4-5.5	1	3	2	2	1	+	2								
6-7.5	+	1	1	1	+	+	_1								
8-9.5		+	+	+	+	+	+								
≥10							] _								

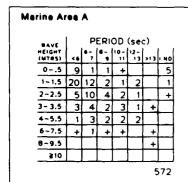
Marine A	108	С									
WAVE	l	PERIOD (sec)									
HEIGHT (MTRS)	<6	6-,	8 - 9	10 - 11	12-	>13	. ND				
05	5	1	+	+			3				
1-1.5	15	9	_3	1	1	+	1				
2-2.5	6	11	5	3	[ ]	1	1				
3-3.5	3	6	_3	2	1	1	1				
4-5.5	1	4	4	2	1	+	1				
6-7.5	+	1	1	+	+	+	1				
8-9.5		+	+	+			+				
≩10											
						17	724				

Marine A		D								
WAVE	l	PERIOD (sec)								
HEIGHT (MTRS)	<6	6-,	8-	10-	12-	>13	. ND			
05	3	+	+	+		Γ_	1			
1-1.5	11	6	2	1	+	+	1			
2-2.5	7	11	5	2	1	+	2			
3 - 3.5	2	8	5	2	1	+	2			
4-5.5	1	5	6	4	ī	1	3			
6-7.5	+	1	1	1	1	1	1			
8-9.5		+	+	+	+	+	+			
≩10										
						66	81			



November

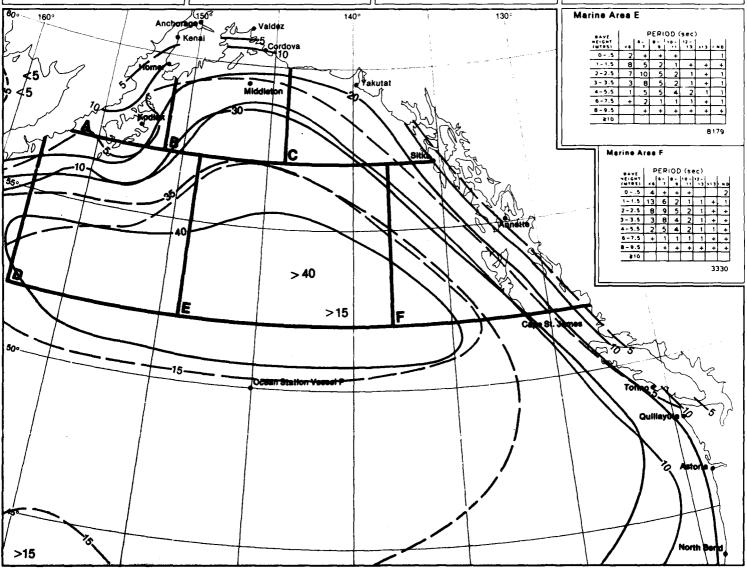
20 Wave Height and Period Wave Height ≥12 and ≥20 Feet



Marine A	••	8									
WAVE		PERIOD (sec)									
HEIGHT (MTRS)	<6	<6 7 9 11 13 >13 ND									
05	4	1	+	+			2				
1-1.5	16	7	'n	1	1	+	1				
2-2.5	8	10	4	3	1	+	+				
3-3.5	3	5	1	+							
4-5.5	1	5	Ν	2	1	+	+				
6-7.5	+	1	1	1	+	+					
8-9.5		+	+	+	+	+	+				
≩10	L.,										
						26	74				

WAVE	l	PERIOD (sec)									
HEIGHT (MTRS)	< 6	6-	9-	10 - 11	12-	>13	. ND				
05	4	1	+	+			_2				
1-1.5	11	7	4	1	1	+	1				
2-2.5	9	11	5	2	+	+	1				
3-3.5	3	6	5	2	1	+	+				
4-5.5	1	5	4	3	1	+	1				
6-7.5	+	1	1		+	+	+				
8-9.5		+	+		+	+	+				
≥10											

WAVE	1	PERIOD (sec)								
HEIGHT (MTRS)	< 6	6 - 7	8 -	10-	12 -	>13				
05	3	+	+	+			1			
1-1.5	10	6	1	1	+	+	+			
2-2.5	6	13	6	2	+	1	1			
3 - 3.5	2	2 9 5 3 1 + +								
4-5.5	1	5	5	4	1	٦	+			
6-7.5	+	1	1	1	1	1	+			
8-9.5		+	+	+	+	+	+			
≥10										



20 Wave Height and Period Wave Height ≧12 and ≧20 Feet

December

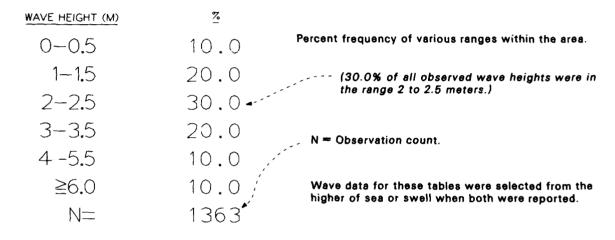
## Map 21. Wave height thresholds

TABLE - Wave height frequencies.

Albers Equal—Area Conic Projection

## Graphs: Wave height thresholds

Wave height frequencies.



The wave height should be estimated from the best available point on the ship that permits the height of the waves to be compared to the height of the ship. The point of observation should be chosen amidships where the pitching of the vessel is at a minimum, and the wave height should be estimated when the ship is on an even keel. In general, it has been found by comparing instrument measurements to "eyeball" estimates that small wave heights are underestimated while large wave heights are overestimated. Theoretically, the wave height cannot exceed 1/13 of the wave length, measured from trough to trough. When both sea and swell, or two systems of swell, are present at the same time, the observer first estimates the higher system of waves and then repeats the process for the lower system.

Swell direction may be determined by "eyeball" or by sighting from a compass along wave crests and adding or subtracting 90°. Ship's true heading can also be used to determine the direction from which swells are approaching. The higher the observation point, the easier it is to determine swell direction. The average of several observations, rounded to the nearest 10°, should be used as the observed swell direction. Refer to the texts for Sets 14 and 18-21 for complete information on waves.

21 Legend 21

Marine Area A		Marine Area B		Marine Area C		Marine Area U	
WAVE HEIGHT (M)	<u>z</u>	WAVE HEIGHT (M)	<u>%</u>	WAVE HEIGHT (M)	ž	WAVE HEIGHT (M)	<u>z</u>
0-0.5	20.6	0-0.5	10.4	0-0.5	10.9	0-0.5	4.4
1-1.5	35.4	1-1.5	27.7	1-1.5	27.3	1-1.5	20.9
2-2.5	25.2	2-2.5	25.8	2-2.5	25.4	2-2.5	28.1
3-3.5	8.7	3-3.5	1€.7	3-3.5	17.4	3-3.5	22.1
4-5.5	6.9	4-5.5	13.9	4-5.5	13.5	4-5.5	18.6
≧6.0	3.1	≧6.0	5.4	≧6.0	5.5	≥6.0	6.0
N=	635	N=	2350	N=	1652	N=	6112
60: 160°		/(150°	140		130 3	Marine Area E	
/	1 ./5	~ SOLZ	i	•		MAYE HEIGHT (M)	5
Ent	1-7	3,000	!		}	0-0.5	2.6
1000	WV HGT (M) 3		<del>+</del> -		1	1-1.5	16.5 26.9
	0-0.5	WV HGT (M) Z WV HG	T (11)	HGT (M) %	j	3~3.5	23.2
	0-0.5 14.0	10-06	1 -			4~5.5	22.1
[ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	20.7	1-16		-0.5 7.5		≥6.0	8.6
3 کسمہ کسیل	29.8	2-26	•	-1.5 21.3		N=	8128
1 30	14.21	3-35		-2.5 20.5	Į	Marine Area F	
	10.7	4-56		1 - 4 .12-	_		_
	3.2	≥6.0	- 1	-5.5 22.7		WAVE HEIGHT (M)	9.8
	V= 2222	N= 725-		6.0 7.2 V V	16	1-1.5	21.4
		/359 N=	3196	N= 1934 \ \{	En Profile	2-2.5	26.5
wv m	ST (M) %					3-3.5	19.6
0-0.		V HGT (M) % WV HG1		WHGT (M) % WV HG	T (M) %	4-5.5	16.4
1-1.5	_ ~.U.I.N_	-0.5	- 4 1	- 1 - 2		≧6.0	6.3
2-2.5	'''.81 1.	-15	1	10.0	~ (1)	)    N=	3228
$\int \frac{3-3.5}{3-3.5}$	28.812	25 2		1 ""	• •		
4-5.5	<3.0 3_	36 2 2 2.5				\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	
∫ ≥6.0	20.7 4-	5.5		, 5.0		5	
N=	0.71 >6	17.01 4-5.5	21.4 4	2.0		رسع	
500	3655 N=	' • <   ≤0.U	8.1	≥6.0 7.3 ≥6	~400 1	2	·*
1		7565 N=	4023	N= 8786 NN= 8786 NN= NN= NN= NN= NN= NN= NN= NN= NN= NN	= 3409	by T	- V
WV HGT (M)						WY HGT (M) 3.5	7
1 1 0-05	- ] <u>w</u> v Hg	T (M) % WV HGT (	30 - I	WV HGT (M) % WV	HGT (M) %	0-0.5 5.5	
1 1-15	< $<$ $<$ $<$ $<$ $<$ $<$ $<$ $<$ $<$		,	-	.0.5 13.5		
1 2-25	0.71 1 1	3.7 0-0.5		, 0.0	-1.5 15.8	30.	
3-3.5	7 9 1 2 -	10.9		1-1.5	-25 23.8	25 20.5	ا کی
4-5.5	712 -	23.1 2-2.5			-3.5 21.5	1.4-0.0	1 6
260 21	4 4 4-55	23.0 3-3.5		, 5	-5.5 19.4	4.1	1 /
N- 5.	51 >60	18.3 4-5.5	7	, ,,,	≥6.0 6.°	1 ZO. 5103	1
N= 281	9 N=	6.1 ≥6.0	6.6	=0.0	N= 1222	0 N= 510	
1	_1	3103 N=	3397	N= 4772	14-	- Janaar	\ \
V	-						( )
January						21 Wave Height T	hresholds
y							

Marina Area A	Merine Area B	<del></del>	Marine Area C		<u> </u>	11-4
WAVE HEIGHT (M)	WAVE HEIGHT (M)	_			Marine Area D	
0-0.5 19.0	0-0.5	<u>%</u>	WAVE HEIGHT (M)	ž	WAVE HEIGHT (M)	<b>%</b>
1–1.5 37.3	1-1.5	8.5 29.8	0-0.5	9.8	0-0.5	4.6
2-2.5 24.6	2-2.5	25.6	1-1.5	27.5	1-1.5	20.5
3-3.5	3-3.5	17.4	2-2.5	25.2	2-2.5	26.9
4-5.5 5.1	4-5.5	12.6	3-3.5	18.7	∬ 3−3.5	23.7
≥6.0 2.2	≥6.0	6.0	4-5.5	14.3	4-5.5	19.1
N= 651	N=	2412	≧6.0	4.4	≧6.0	5.2
		2+12	N=	1529	N=	6038
60° 160°	(150°	140°		130	L.	
8 1/	Solly		}	130	Marine Area E	
To have	13,000				0-0,5	3
MV MGT (M) Z		~			1-1.5	2,9 18 <i>.</i> 8
1	WV HGT (M) & WV HG	T(M) % WVH	GT (M) %	. [	2-2.5	29.0
	10.010-0.	10.8.0-0		*	3-3.5 4-5.5	23.5
3=3= 25.5/3	14.9 1-1.5	19 4 1-1	N.	1	¥-3.3 ≧6.0	19.1 6.6
h-10 14-55 1.213	~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~	26 8 2-2	11 602		N=	7538
1 ≥60 g.914.	-55	20.9 3-3		L	Marine Area F	
	6.0		5 18.9 19796	1	WAVE HEIGHT (M)	5
2320 N	V= 7568 N=	5.4   ≥6.		Sa	0-0.5	10.4
WY	- 11-	3255 N=	1289	\$ ( 14 ) P	1-1.5	23.5
0-0.5 3 WV H				72007	2-2.5 3-3.5	26.2 18.7
1-10 2.8/0.0	GT (M) 3 WV HGT (	<u>(M)</u> % ₩∨ H	IGT (M) % WV HG	T (M) Z P	4-5.5	15.6
2-25 16.9 1	4.9 0-0.5	2.3 0-0	_		≩6.0	5.5
3-35 26.0 2-2	_ '''   1-1.5	19.0 1-	· • • • • • • • • • • • • • • • • • • •		N=	3121
14-56 20.513 3.	2-2.5	27.7 2-2	ı.	5 25.7	\n \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	====
≥6.0 -2.1 4-5.5	3-3.5	23.7 3-3	1.5 21.3 3-3	5 20.3		
50°	4-5.5	20.7 4-5				
N=	7606	6.7 ≥6.		2267	Ching and	
WV HGT (M)	,002 N=	3703 N=	= 8295 N=	= 3367	The state of	$\searrow$
1 0-05 - 1 WV HGT (					HGT (M) 2	3
1 1-16	- MAHGI (M)	₹ WVH	GT (M) % WV H	GT CM7	5.4 M	5 5
1 5-25 1 1-15	4.4 0-0.5	2.2 0-0		J.J. 17. 1	15 26.5	1/1
1 2 2.5	18.2 1-1.5 29.3 2-2.5	18.0 1-1	.5 21.6 1-	1.5 17.4	- 25 29.4	/ "
7-5.5 12 3-3.5	7/1 - 1	30.1 2-2.	5 30.0 2-2		25 19.8	کر ا
	8 1 1 2	25.2 3-3		3.5 21.4	1. EN 13. 1	
7 ≥6.0	5 0 1	8.8 4-5	· · · · · · · · · · · · · · · · · · ·		1 - 6 0 4 . 4	
N= 2	937	5.6 ≥6.			N= 5124	
	_ / /- 3	164 N=	: 4467 N	V= 11469	1	7
			Ĭ			1 1
			-		1	\ i I
Wave Height Thresholds						\

Marine Area A	ļ	Marine Area B		Marine Area C		Marine Area D	
WAVE HEIGHT (M)	3	WAVE HEIGHT (M)	ž	WAVE HEIGHT (	<u>w</u> ) <u>z</u>	WAVE HEIGHT (M)	3
0-0.5	22.1	0-0.5	9.8	0-0.5	13.1	0-0.5	4.5
1-1.5	43.8	1-1.5	33.4	1-1.5	35.4	1-1.5	23.6
2-2.5	20.2	2-2.5	28.2	2-2.5	29.3	2-2.5	29.0
3-3.5	`-8.9	3-3.5	15.0	3-3.5	11.7	3-3.5	20.9
4-5.5	3.7	4-5.5	9.9	4-5.5	8.4	4-5.5	17.0
≧6.0	1.2	≥6.0	3.7	≥6.0	2.1	≥6.0	5.0
N=	1040	N=	2638	N=	1861	N=	7018
				]]			, 0 10
0 160		(150	140		130	Marine Area E	
		- SOLG				WAVE HEIGHT (M)	*
a 1	レースへ	- 3,000			ļ	0-0.5	3.4
MRD	WV HGT (M) 3	7-2-				1-1,5	20.8
	0-0.5 25.0 1-1.5 33.8	WV HGT (M) Z WV	HGT (M) % W			2-2.5	30.3
$\mathcal{F} = \mathcal{F}$	1-15 25.0	10 00		V HGT (M) %		3-3.5 4-5.5	22.2 18.4
" har wal.	າ - ້າປ.ດາ	/ 1. 1 - 1		-0.5 9.4		4-5.5 ≧6.0	4.9
3 کسہ ہے کہ				1-1.5 31.0	h.	N=	8825
_10 /4	-55 11.21	3-35 35	2.5 30.2 2	-2.5 29.4	R	Merine Area F	
∮≧	60 3.3	4-5.5 16.9 4-5		, ,	1 0 m		
$f \wedge$	1.7 V= 2945	≥6.0 3.6 ≥6.		' 1 ' 4	1/20 /2	WAVE HEIGHT (M	_
	2 345	N= 7878 N=	3.3	≥6.0 2.5 N C	12/	0-0.5 1-1.5	9.9 25.7
		14-	3952	N= 1196	5 5/ (4) P	2-2.5	27.4
WVHO	5T (M) 2 W				_ <u> </u>	3-3.5	17.7
, 0.	5 5 7	V HGT (M) % WV H	GT (M) %	NV HGT (M) %	WV HGT (M) %	4-5.5	14.7
1-1.5	5 12 2 0 -	-0.5 5 0 0	] .	_	0-0.5 6.9	≧6.0	4.6
2-2.5	~ ·	-1.5 10 1	2.5	)-0.5 11.9 ( 1-1.5 15.1	1-1.5 25.4 PV	N=	3736
$\int 3-3.5$		2.5 30 0 0	~ ~	2-2.5 25.6	2-2.5 27.9	W. J.	
4-5.5	10	3.5 21 4 2 2			3-3.5 19.4	}	
≧6.0	6 6 1	$0.5  17.0  4_{-5}$	_ ~~.~   ~		4-5.5 16.1	S	
N=	3980 1	<sup>0</sup> 5.4 ≥6.0			≥6.0 4.3		
	N=	8174 N=	٠.٠		N= 3999		_ 📐
WY	-	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	4273	N= 10488			La Village
0-0.5	3 WY HG					WV HGT (M) 3	. 1
1-15	3.0 0-0.5 0-0.5 1-1.5	(M) % WV HGT	(M) %	VV HGT (M) %	WV HGT (M) %	1 26 20.	
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	3.0 0-0.5	2./ 10-05		-0.5 4.5	0-0.5 14.2	1 16 /0.	11
12.~. 30	2 1 2	18.3 1-15		1-1.5 24.0	1-1.5 17.1	1 25 29.5	1 / "
14-55 22	.31225	31.4 2-25		-2.5 31.4	$1_{2-2.5}$ 26.6	12 35 19.	1 %
1 260 19.	0 1 4 5 5	23.9 3-3.5	_	-3.5 21.7	3-3.5 22.0	13-55 11.3	
1 A 5.	7 1	17.2 4-5.5		-5.5 13.8	14-5.5 17.0	14-60 3.4	1 \
i 279;	¬ • - • • •	6.6 ≥60		≥6.0 4.6	>60 3.2	. 1 502	· 1
	> N=	3043 N=	3043	N= 4381	N= 12255	5   N-	
-			30-3	14- 4201		- Lander	1 )
							1 '

Marine Area A		Marine Area B		Marine Area C		Marine Area D	
WAVE HEIGHT (M)	*	WAVE HEIGHT (M)	<u>z</u>	WAVE HEIGHT	(M) %	WAVE HEIGHT (M)	<u>*</u>
0-0.5	35.2	0-0.5	15.2	0-0.5	16.1	0-0.5	6.9
1-1.5	38.1	1-1.5	36.7	1-1.5	38.9	1-1.5	28.5
2-2.5	15.0	2-2.5	23.5	2-2.5	24.6	2-2.5	28.8
3-3.5	7.1	3-3.5	13.3	3-3.5	12.5	3-3.5	19.0
4-5.5	4.4	4-5.5	8.7	4-5.5	6.0	4-5.5	13.4
≥6.0	0.1	≥6.0	2,6	≧6.0	1.8	≧6.0	3.3
N=	1065	N=	2697	N=	1852	N=	7006
				JL			
60 160	<del></del>	7(150	140		130	Marine Area E	
1	7 (-)	~ SOL-B				WAVE HEIGHT (M)	<b>š</b>
E-3-1	レースへ	_ 3,500				0-0.5	5.1
MRA	MY HGT ()	7				1-1.5	26.1
1100	WV HGT (M) 3	WV HGT (M) Z WV H	GT (M) % W			2-2.5 3-3.5	29.9 20.5
$\mathbf{I} / \mathcal{I} = \mathcal{I}$	10-0.5 30.8	0-0.5		v HGT (M) 7		4-5.5	14.5
11	27.8	1-15 20	0.5 13.9 0			≩6.0	3.9
1 6	3-3.5 8 6	2-2.5 32.9 2-2 3-3.5 19.5 3.3	.5 32.7	1–1.5 34.0	2. ( >	N=	8643
1 30 %	4-5.5 8.6	3-3.5 19.5 3-3 4-5.5 11.3 4.5	.5 25.3 2	-2.5 28.5 N			
	>6.5 5.9	4-55	.5 15.9 3	-7'2 12'2 V	5-1 <del>4</del>	Marine Area F	
1 <i>1</i>	0.7	260	5 9.5 4	-5.5 8.4 1/3		MAYE HE GHT (M)	3
55	2815		2.8		V [37-1] [14]	0-0.5	12.7
1		N= 7485	3799	N≈ 1405 I		1-1.5	29.7
1 100	+-		į.	1		2-2.5 3-3.5	26.0 16.5
	HGT (M) 3	/ HCT //-			WV HGT (M) %	4-5.5	12.1
1 " "	/.D D _ 1 _		T (M) %	The same of the sa		≥6.0	3.0
1-1	.5 74 <b>I</b> ~	3.710-0.	5 3.7 (	J-0.5	0-0.5	N=	3403
2-2.	30.0 m	$\begin{bmatrix} -1.5 & 25 & 1 \end{bmatrix}$ 1-1.	5 24.4	1-1.5 22.1		<u> </u>	
3-3.4	22.2 3-	<sup>2.5</sup> 31.9 2-2.	5 29.9		2	47.5	
4-5.5	15.6 4-	J-J.		3-3.5 19.7	3-3.5	$\lambda_{\mathcal{A}_{i}}$	
≥6.0	4 ~ 1			4-5.5 14.8	4 3.	€ .	
50: N=	4371	2.0 ≥6.0		≥6.0 3.6	≥6.0 3.8	the state of the s	
	N=	8468 N=	4625	N= 10617	N= 3932	1 - The - 7	<u>:</u>
-		Į.	.023				14.
WV HGT (M	2 7 1				HGT (M) %	WV HGT (M) 3.7	
0-0.5	5 3 0	<u> </u>	(M) %	WV HGT (M) %	WV AG	10-0.5	
1 3 1-1.5		5.1 0-0.5	- <b>-</b>	0-0.5 6.7			
2-2.5		26 6 1 1 15	26.5	1-1.5 31.0	1-1.5 26.4	2-2.5	•
3-3.5		31.6 2-2.5		2-2.5 30.3	2-2.5 28.6	12-35	7 %
4-5.5		19.2 3-3.5		3-3.5 17.6	3-3.5 18.		7
1 /	1 ~ 1	13.5 4-5.5		4-5.5 11.5	4-5.5 10.		
N= 20	100	4.2 ≥6.0			1 >60 2.1	5 N N 531 "	`` <b>`</b> `
29	96   N=	3103 N=	4.0	<del>-</del> -	1 1 1/0	· · · · · · · · · · · · · · · · · · ·	
		= 100 J N=	3114	N= 4454			
V			_ <del></del>				1
Ł							<del></del>
21 Wave Heigh	t Thresholds	}	. = ====				Apri
							•

Marine Area A

WAVE HEIGHT (M)	3	WAVE HEIGHT (M)	<u>z</u>	WAVE HEIGHT (M)	<u>z</u>	WAVE HEIGHT (M)	3
0-0.5	48.1	0-0.5	20.6	0-0.5	20.8	0-0.5	9.1
1-1.5	35.6	1-1,5	42.0	1-1.5	44.9	1-1.5	34.0
2-2.5	11.0	2-2.5	22.2	2-2.5	22.2	2-2.5	30.0
3-3.5	3.1	3-3.5	9.4	3-3.5	7.6	3-3.5	16.4
4-5.5	1.6	4-5.5	4.5	4-5.5	3.6	4-5.5	9.2
¥=5.5 ≧6.0	0.5	4-5.5 ≥6.0	1.2	÷ 5.5 ≥6.0	0.9	≥6.0	1.4
i	i			s <b>I</b>	1871	N=	7731
N=	1473	N=	3167	N=	1071	11/-	//31
60 160		(150	140°		130	Marine Ares E	
		and solling.			Ì	WAVE HEIGHT (M)	3
P_1	r-X/_	7,021			44	0-0.5	7.3
1071	1	7-2				1-1.5	31.8
1/07	WV HGT (M) %	WV HGT (M) % WV H	Ţ	i	1	2-2.5 3-3.5	33.2 17.0
	0-0.5 38. <sub>1</sub> ,	0-05	1	HGT (M) Z	ļ	3-3.5 4-5.5	9.3
1/ /	1-1.5 36 - 1	1-15 2-		•		≥6.0	1.4
ا كسر لسلا	- <.0 16 -1	30.4 1-1		1.5 42.7		N=	9336
1000		~ - · · · · · · · · ·	.5 26.8 2-	1222	L	Marine Area F	
	1 1	4-56			~	H	
1	0.7	≥6.0	0.2	عشان الم		0-0,5	15.2
	3339	N- 705 ≥0.0	0.5	5.0 1.0 N 7 2/2		1-1.5	35.1
		N= 7051 N=	3721 N	v= 1317 \ <sup>2</sup>	5 50 Py P	2-2.5	27.0
/ WV H	1GT (M) %				7	3-3.5	13.5
0-0	· - 1	HGT (M) % WV HS		WY H	GT (M) Z	4-5.5	7.7
1-1.	0.110-	0.5	- 1 -			≥6.0 N=	1.5 3524
2-2.5	_ 30.31 <sub>1-</sub>	-15 30 0-0.	*	- 0.5	- 4 (1)	14-	3324
3-3.5	32.9/ 2-	26 22./					
4-5.5	10.31 3-	2			3.5 13.8		
≥6.0	10.81 4-4	5.0 5.0	1	5.0	5.5 8.5	5	
1 I N-	1.61 >6	0.7 4-3	1	3.5	6.0 1.3	- Combine	
50	5097 N=	≥0.0		20.0	N= 4024	200 = 4C	A 3
		9642 N=	5203	N= 10631			
WV HGT (M)						WV HGT (M) 3.9	
0-0.5	- WV HG	T (M) Z WV HGT	(M) -	V HGT (M) %	V HGT (M) %	1 - 0 - 13 - 1	(
1-1.5	6.1 0-0.	5 5 1 0 0 5			05 17.1	1-1.5	
1 1 2-2.5 3	30.6 1-1.5	33 31 4 15		1-1.5 38.1	1_15 36./	1 22.	
$\frac{1}{1} = \frac{3-3.5}{1} = \frac{3}{1}$	2.2 2-2.5	32 0 0 0 0			-2.5 27.7		6, 50
1 4 5.5 6	8.8 3-3.5	16.9 3-3.5		$-2.5  30.3 \mid 2$ $-3.5  14.8 \mid 3$	1-3.5	14.55	1 7
1 7	3-3.5 4-5.5	9.0 4-5.5	¥	-5.5 7.2	1-5.5 5.1	1 / 0 · ·	. <b>\</b>
N= 34	2.7 ≥6.0 29 N-	1.9 ≥6.0	- 1	· 3.3	>60 U.S	5/9	1
450	29 N=	3504 N=	1	l	N= 1148	·	
		= • • • • • • • • • • • • • • • • • • •	3472	N= 4763			
1							\ \ \
May					2	21 Wave Height 1	Thresholds

Marine Area C

Marine Area B

Marine Area D

Marine Area D

WAVE HEIGHT (M)  0-0.5 58.7 1-1.5 33.2 2-2.5 5.9 3-3.5 1.5 4-5.5 0.7 ≥6.0 N= 1826	WAVE HEIGHT (M)  0-0.5  1-1.5  2-2.5  3-3.5  4-5.5  ≥6.0  N=	24.3 47.5 19.5 6.2 1.9 0.6 3178	WAVE HEIGHT (M)  0-0.5  1-1.5  2-2.5  3-3.5  4-5.5  ≥6.0  N=	29.5 46.7 18.3 4.2 1.2 0.2 1994	WAVE HEIGHT (M)  0-0.5  1-1.5  2-2.5  3-3.5  4-5.5  ≥6.0  N=	3 14.5 41.9 28.4 10.2 4.3 0.6 7797
4-5.5	1-1.5 51.6 1- 2-2.5 26.0 2-2 3-3.5 7.3 3-3	0.5 18.2 0- 1.5 48.6 1- 2.5 23.1 2-	HGT (M) \$ -0.5 28.3 -1.5 44.3 -2.5 19.7 -3.5 5.4	130:	Marine Area E  WAVE MEIGHT (M)  0 - 0.5  1 - 1.5  2 - 2.5  3 - 3.5  4 - 5.5  ≥6.0  N≃	12.0 42.7 29.5 11.2 4.2 0.5 9004
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	-0.5 13.1 0-0 -1.5 41.3 1-1. -2.5 30.1 2-2.	0 0.3 ≥ 3332 1  67 (M) ½ W  .5 9.9 0  .5 40.8	-0.5 19.5 0- 1-1.5 38.9 1 -2.5 28.3 2	(HGT (M) ½ -0.5 15.4 -1.5 43.0 -2.5 28.7	0-0.5 1-1.5 2-2.5 3-3.5 4-5.5 ≥6.0 N=	22.3 43.4 23.0 7.8 3.1 0.4 3719
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	3.5 10.6 3-3. 5.5 4.2 4-5. 0 0.7 $\geq$ 6.0 10084 N=  17 (M) $\frac{\pi}{2}$ wv hgi	5 11.7 3 5 4.9 4 0 0.5 5315	-3.5 9.9 3 -5.5 3.0 4 ≥6.0 0.4 N= 10923 VV HGT (M) 2 1-0.5 10.3	-3.5 9.3 -5.5 3.3 ≥6.0 0.4 N= 3999 WV HGT (M) 3 0-0.5 19.7 1-1.5 45.7	WY HOT (M) 2 0-0.5 16.0 1 1-1.5 49.7 2-2.5 25.1 2-2.5 6.7	
3-3.5 30.3 2-2.5 4-5.5 11.2 3-3.5 ≥6.0 1.0 ≥6.0 N= 3576 N=	29.0 2-2.5	29.4 2 12.1 3 4.4 4	1-1.5 45.6 2-2.5 29.1 3-3.5 11.3 4-5.5 3.4 ≥6.0 0.4 N= 4506	2-2.5 25.4 3-3.5 7.3 4-5.5 1.8 ≥6.0 0.3 N= 11936	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	1 2

Marine Area C

21 Wave Height Thresholds

Marine Area A

Marine Area B

July

Marine Area A

WAVE HEIGHT (M)

Marine Area B

WAVE HEIGHT (M)

WAVE HEIGHT (W)	2	WAVE HEIGHT (M)	2	WAVE HEIGHT (W)	2	WHAT ILLIAM (W)	2
0-0.5	51.4	0-0.5	28.8	0-0.5	33.2	0-0.5	15.8
1-1.5	40.1	1-1.5	47.7	1-1.5	47.6	1-1.5	43.3
2-2.5	6.3	2-2.5	16.7	2-2.5	14.5	2-2.5	28.4
3-3.5	1.6	3-3.5	5.1	3-3.5	3.5	3-3.5	9.2
4-5.5	0.6	4-5.5	1.5	4-5.5	1.1	4-5.5	2.9
≥6.0	0.1	≧6.0	0.3	≥6.0	0.1	≧6.0	0.3
N=	1952	N=	3312	N=	2110	N=	8011
'\-	1332		33.12	''-	2 , 10	,,,-	
60 160		/(150°	140°		130°	Marine Area E	
	1	as son		i	1	WAVE HEIGHT (W)	3
21	+-5)	A SOLG				0-0.5	13.8
Tona	WYNCE	1-22	:			1-1.5	47.8
	0-0.5 30 3	WV HGT (M) % WV			J	2-2.5	26.2
1 / / / !	1	10-05	- 1	HGT (M) %		3-3.5 4-5.5	8.8 3.0
1/ /	2-25 17./	1-15	-0	0.5 28.0		4-5.5 ≧6.0	0.4
ة أ كسه لسرا	12.5	2-25		-1.5 46.0		N=	9519
4	~5.5	3-3.5 3 8 3-3	, _	2.5 20.6 \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	} .	Marine Area F	
	0.6	4-5.5 1.1 4-5		5.5 1.6	Des .	<b>\</b>	_
55	V= 3719	≥6.0 0.1 ≥6.		6.0 0.2 N	20 0	0-0.5	<u>\$</u> 24.6
	5/19	N= 8483 N=	J.J =	N= 1728 I		1-1.5	45.8
			3330		2 8 04/12 - 1	2-2.5	21.2
WVH	GT (M) 3 W					3-3.5	6.1
1 0.	3 11 1 7	V HGT (M) % WV HC	5T (M) % W	V HGT (M) %	HGT (M) Z	4-5.5 ≧6.0	2.0 0.3
1-1.5	) 1- 1	-0.5 13.4 0-0.	5 12.7 0	-0.5 21.1 0-	-0.5 15.5	N=	4100
2-2.5		-1.5 49.4 1-1.	4		-1.5 48.9 N -2.5 24.6		
	10.6 3-	2.5 27.8 2-2.			_ 1 1	300	
¥-5.5 ≥6.0	2.9 4-	5 5 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3				\\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	
1 1 A.	0.2		3.1 4	J. 2 ·		₹ ~~	
50-	5317 N=	0.31 260	0.4	20.0	- 277	China Contraction	
	. 1	10113 N=	5440	N= 10883	N= 43/2	2	$\sim$
WV HGT (M)			•	1		WV HGT (M) 3 3	~ ~~
1 0-0.5		T (M) % WV HGT			WV HGT (M) %	1 1	$\sim$ 5
1-1.5	4.110.00			- 1	0-0.5 18.8	10-0.5 48.5	7
1 2-2.5	0.4 1-1.5	48 7 1 45		0.5	1-1.5 53.0	1 25 20.1	1 / "
1 3-3.5	2-2.5	27 4 2 25		1-1.5 48.1	2-2.5 22.3	5.6	1 2
1 ' 2.5 ~	1.4 3-3.5	27.4 2-2.5 9.1 3-3.5		2.0	3-3.5 4.5	1 . 65	1 6
1 4 5.0	.5 4-5.5	2.1 4-5.5		-3.5 7.1	4-5.5 1.2	1 -60 0.3	] (
N= 383	3 ≥6.0	0.3 ≥6.0		-5.5 2.0 ≥6.0 0.3	>60 0.1	134	<b>\</b>
450	N= N=	3520 N=			N= 12012	!   "-	-+-
-			3263	N= 4404	-		\ \
1				-		_	\ \
	1	ı	ļ		1	1	1 1

Marine Area C

WAVE HEIGHT (M)

Marine Area D

WAVE HEIGHT (M)

21 Wave Height Thresholds

				,			11-473
Marina Area A	}	Marine Area B		Marine Area C	}	Marine Area D	}
WAVE HEIGHT (M)	<u>z</u>	WAVE HEIGHT (M)	*	WAVE HEIGHT (M)	<u>z</u>	WAVE HEIGHT (M)	<u>*</u>
0-0.5	51.0	0~0.5	26.5	0~0.5	31.6	0-0.5	11.3
1-1.5	35.5	1-1.5	44.4	1-1.5	43.4	1-1.5	38.9
2-2.5	10.0	2-2.5	19.9	2-2.5	18.2	2-2.5	31.4
3-3.5	2.8	3-3.5	6.2	3-3.5	5.1	3-3.5	12.7
4-5.5	0.5	4-5.5	2.4	4-5.5	1.3	4-5.5	4.9
≥6.0	0.2	≧6.0	0.5	≧6.0	0.5	≧6.0	0.8
N=	1862	N=	3121	N=	2214	N=	8365
		L				Ĺ	
60° 160°	1 ~	/(150°	140°		130	Marine Ares E	
K /		Soll B			İ	WAVE HEIGHT (M)	3
	1-2/	3,000			A Company of the Comp	0-0.5	10.4
1/VS	WV HGT (M) %		<del></del>			1-1.5 2-2.5	43.8
$I / \mathcal{E} I$		WV HGT (M) T WV HG	T (M) % WV	HGT (M) 3		3~3.5	31.4
	1-1.5 42 -1	0-0.5 11 0 0	_ ~ ,	}	{	4-5.5	3.7
1/2	-2.5	1-15 c.		1.5 44.5	j	<b>≥</b> 6.0	0.6
13.	-3.5 16.0 -3.5 4 a	2-25 mm - 1		11 11/2	<b>\$</b>	N=	9763
14-	5.5 4.4	3-3.5 6.4 $3-3.5$		1 5 .5 %	L	Marine Area F	
, ,	0.0	>6 0 2.4 14-5.5	2.2 4-	5.5 1.3	51	MAVE HEIGHT (M)	3
55° N:	3843	0.8   ≥6.0	0.6 ∮ ≩6	5.0 0.4 N V SA	JA	0-0.5	24.0
		N= 8072 N=	3665 ∮ N	= 1706 \ \ \ \ \ \	3 20 64/4	1-1.5 2-2.5	45.0 23.2
WV HG	(M) Z W			i	2722	3-3.5	5.7
0-0.5		HGT (M) % WV HGT	400	WY HO	GT (M) %	4-5.5	1.6
1-15	Ø.5 J n.	0.5 11.5 0-0.5	- 1		5 16.1	}}	0.4 4183
12-25	3/.5/ 1-	1.5 47 0 1 15		-0.5 21.7 0-0 -1.5 42.1 1-1	1.5 45.5		4103
3-3.5	1, 1	2.5 31 31 3 35		-2.5 25.8 2-2	2.5 26.1	My L	
4-5.5		3.5		-3.5 7.4 3-3	3.5 9.1 (	<b>\</b>	
≥6.0	001	5 3.9 4-55		-5.5 2.4 4-	5.5 2.7		į
50° / N=	5662 ≥6. N=	0.6 ≥6.0			5.0 0.5	G Z M	ì
1	-   N=	10136 N=	5710	N= 11574 N	= 4433	En AC	
0-05			•	_ 1		(M) %	1
0-0.5		(M) *			HGT (M) 2 1	WV HGT (M) 27.5	
1-1.5	0-0.5	11 7 0 05	_ 1 -		-0.5 19.9	0-0.5 27.5	
2-2.5	1-1.5	0-0.3		0.0	-1.5 47.0	7 1-10-	` `
1 3-3.5	.4 2-2.5	22.5		~1.5 40.5	-2.5 24.5	25 5.2	600
1 4-5.5	9 3-3.5	28.1 2-2.5 9.9 3-3.5		2.0	-3.5 6.8	$\begin{vmatrix} 3-3.5 & 5.2 \\ 4-5.5 & 1.6 \\ 0.2 \end{vmatrix}$	1 6
)0	~ 7 . 5.5	2.9 4-5.5		$-3.5$ 8.9 $\sqrt{3}$ $-5.5$ 3.1 $\sqrt{4}$	-5.5 1.0		
N= 3720	, , ~0.0	0.2 ≥60			>60 0.2	9010	1 1
160	N=	3482 N=	7	N= 4330	N= 12041	The same	
/	-				-		\ \ \
	1						\
21 Wave Height	Throsholde				<del></del>		August
E. HATE HEIGHT							ragasi

Marine Area A		Marine Area B		Marine Area C		Marine Area D	
WAVE HEIGHT (M)	2	WAVE HEIGHT (M)	<u>%</u>	WAVE HEIGHT (	<u>w</u> ) <u>%</u>	WAVE HEIGHT (M)	<u>z</u>
0-0.5	32.2	0-0.5	16.4	0-0.5	24.9	0-0.5	8.5
1-1.5	38.9	1∸1.5	35.2	1-1.5	35.9	1-1.5	32.7
2-2.5	18.6	2-2.5	26.1	2-2.5	23.7	2-2.5	30.9
3-3.5	6.1	3-3.5	12.5	3-3.5	10.2	3-3.5	16.0
4-5.5	3.4	4-5.5	7.7	4-5.5	4.0	4-5.5	10.0
≥6.0	0.9	≥6.0	2.1	≥6.0	1.2	≥6.0	1.9
N=	1023	N=	2928	N=	1977	N=	7822
60: 160°		(150°	140°		130°	Marine Area E	
	1	y song				MAVE HEIGHT (M)	3
Foll T	7	3,000				0-0.5	7.1
1/1/3/1	Y HGT (M) Z	3				1-1.5 2-2.5	29.2 32.7
1 / / 10-	· 0.5	WV HGT (M) & WV	HGT (M) %	IV HGT (M) %	\	3-3.5	17.8
1/ / 2/-	1.5 36 -	6.710-	- 1	<b>-0.</b> 5 20.3	\	4-5.5	10.9
2-	<.⊃ ⊃a I			1-1.5 37.7	,	≧6.0 N=	2.3 9010
$ \begin{array}{c} 3-3 \\ 4-5 \end{array} $	.5 - 1	3-36		-2.5 24.4	E I		
≥6.0	3.2	4-66		1-3.5 11.2 K	2	Merine Area F	
55: N=	0.9	≥6.0		-5.5 5.5	1205	MAVE HEIGHT (M)	5
	3426	=0.0 1.2 ≥6. N= 7815 N=	2.5	≥6.0 0.9 N N	A JA	0-0.5 1-1.5	18.6 36.2
		/815 N=	3516	N= 1497	5 8 My 7	2-2.5	25.7
O=0.5	y) z				- A 7 - A - T	3-3.5	11.8
1 0.5	_	HGT (M) 3 WV H	GT (M) %	WV HGT (M) %	V HGT (M) %	4-5.5	6.3
1-1.5	30	0.5 7 1 0 0			1-0.5 11.4	}} ≥6.0 N=	1.4 3847
	2	-1.5 31.4 1-1.		1-1.5 24.7	1-1.5 38.0		
3-3.5 4-5.5	8.8 3-				2-2.5 28.5	3/2	<del>-</del>
>60.5 1	1.21 4	5 3-3.			3-3.5 13.8 4-5.5 6.7	l <sub>2</sub>	
1 1	2.11	0 3.7 4-5.		4-3.3	. 7	Erra :	
500	62 =0. N=	< · 3   ≥6.0	1.6	≥6.0 1.4	20.0	Constitution of the second	,
	_	9032 N=	5072	N= 11480	N= 3023		' V _
WV HGT (M)	-		1			WV HGT (M) 37 9	1 2
1 10-0.5	1 = 110	(M) % WV HGT	(M) %	WV HGT (M) %	WV HGT (M) %	\ \F \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	
1-1.5 33. 2-2.5 33.		6 1 1 2 2 2		0-0.5 7.9	0-0.5 14.2	10-0.5 44.1	
3-30 32.6	3 2 25	32.3 1-15		1-1.5 37.7	1-1.5 38.2	12-2.5 23.5	
1 4-55 16.8	1 2 2.3	31.5 2-25		2-2.5 31.9	2-2.5 29.9	11770	1 2
1 ≥60 10.0	4-5.5	19.0 3-3.5		3-3.5 14.2	13-3.5	14-5.5	1 7
1 1 1 1.6	≥6.0	9.7 4-5.5		4-5.5 6.9	1 7 7 7	≥6.0 7183	1
3355	N=	1.4 ≥6.0	1.5	<b>≥6.0</b> 1.3		1 /100	1
		3316 N=	3133	N= 4296	N = 12627	1	-

September

21 Wave Height Thresholds

Maria Ana A							11-4/5
Marine Area A		Marine Area B		Marine Area C		Marine Area D	!
WAVE HEIGHT (M)	<u>z</u>	WAVE HEIGHT (M)	7.	WAVE HEIGHT (M)	3	WAVE HEIGHT (M)	3
0-0.5	21.6	0-0.5	9.8	0-0.5	12.5	0-0.5	6.1
1-1.5	38.7	1-1.5	31.1	1-1.5	32.7	1-1.5	23.2
2-2.5	20.7	2-2.5	25.7	2-2.5	23.4	2-2.5	27.3
3-3.5	10.1	3-3.5	17.2	3-3.5	16.2	3-3.5	20.5
4-5.5	6.8	4-5.5	12.2	4-5.5	10.8	4-5.5	17.2
≥6.0	2.0	≧6.0	3.9	≧6.0	4.4	≥6.0	5.7
N=	911	N=	3372	N=	2059	N=	7446
<b>8</b> 0° 160°	<del></del>	T <sub>150</sub> °		<u> </u>	130°	Marine Area E	
180		san l	140		,;s		_
	1-2)	2 30		1		0-0.5	<u>\$</u> 2.6
To ha	/	1-500				1-1.5	18.7
	WV HGT (M) Z	WV HGT (M) 2 WV H			,	2-2.5	28.3
	0-0.5	0-0.5 5 4 0-0		V HGT (M) %	\	3-3.5	22.6
	29.7	1-15	.5 6.6 0	-0.5 9.0	i l	4-5.5 ≧6.0	19.6 8.3
13	~·J 74 T	19.0 1-1	.5 26.9	1-1.5 30.2		≦6.0 N=	9202
Mer 13	J.D 14 . T	29.912-2.	5 28.2 2	-2.5 24.9	, i		
<i>V</i>	J.D . 1		5 19.1 3	-3.5 مركب كريم بين المركب المركبة	:	Marine Area F	
1.	2.0	>6 0	5 13.5 4	-5.5 12.2 € € €	57	BAVE HEIGHT (M)	3
55.	V= 3358		5.6	≥6.0 6.1 N V ŽŽ	TA .	0-0.5	11.6
1	_ 7	N= 8548 N=	3833	N= 1449 \ L	16106	1-1.5	24.5
f	-		d d	2 .	53.00	2-2.5	26.9
	GT (M) Z	VHCT			1	3-3.5 4-5.5	17.6 13.3
<b>,</b> 0-0,	5 - 1 -	V HGT (M) % WV HG	T (M) %		GT (M) Z	≥6.0	6.2
1-1.4	) 10	-0.5 2.9 0-0.	5 2.1	0-0.5 14.7 0-0		N=	3860
2-2.5	2 2	-1.5 16.8 1-1.5	18.4	1-1.5 15.5 1-			
3-3.5	22	2.5 30.0 2-2.5		2-2.5 25.2 2-3		2000	
4-5.5	3. I -	3.5 22.9 3-3.5		3-3.5 20.3 3-		6	
<b>∫</b> ≥6.0	6 - 1	0.5 19 9 1 4 5 5		4-5.5 17.5 4-	5.5 15.2		
50° N=	4315	.0 7.4 ≥60	7.6	≥6.0 6.8 ≥	6.0 5.8	The same	
100	N=	8230 N=	4828	,	N= 3782	Com Ac	$^{\wedge}_{\Lambda}$
WV			.020			- L	~ ~
WV HGT (M)						WY HGT (M) 2 9 M	7 7
0-0.5	2 2		(M) %		V HGT (M) %	1 66 10.	
1-1.5 2	0-0.	7 7 1 1 2 2 2		0-0.5 4.6 0	-0.5 12.4	10 . 33.3 (	
2-2.5		10 0	20.3		I-1.5 23·/	1 ~ 10,5	1 /
		22 6		2-2.5 30.0 2	-2.5 29.1	1 2 2 7 1 1 1	1 2
16	7	21.0 3-3.5		25 20 5 3	-3.5 1/.9	$\begin{pmatrix} 3-3.5 & 9.9 \\ 4-5.5 & 2.9 \end{pmatrix}$	1 %
≥6.0 5	_ 1	17.9 4-5.5			1-5.5 13.4		\ \
$\int_{\Gamma} N = 327$	· ·	5.9 ≥6.0			>6.0 3.4	1 1 6555	1
180	9 N=	3282 N=	6.1	=0.0	N= 12686	5 1 11-	
		-02 N2	3465	N= 4736	• •	- Landard	
V					Description of the second second		
	1						
21 Wave Height	Thresholds	3					October
_							

Marine Area A

WAVE HEIGHT (M)

0-0.5

1-1.5

-----

<u>\*</u>

22.0

37.1

Marine Area B

WAVE HEIGHT (M)

0-0.5

1-1.5

3

9.9

31.2

1-1.5	3/.1	1-1.5	31.2	1-1.5	30.0	1-1.5	20.9
2-2.5	22.3	2-2.5	26.2	2-2.5	27.3	2-2.5	27.9
3-3.5	9.6	3-3.5	14.8	3-3.5	15.0	3-3.5	20.7
4-5.5	5.4	4-5.5	11.1	4-5.5	13.4	4-5.5	19.6
≥6.0	3.7	≥6.0	6.9	≧6.0	4.5	≥6.0	6.9
N=	728	N=	2940	N=	1724	N=	6681
14-	, 20	,,	2 940	1	1,24	1	
60 160		(150°	140°		130 "	Marine Area E	
160		of soling	140°	•	130	İ	
6		5 2	ļ	1	1	WAVE HEIGHT (M)	<u>*</u>
6	1	- 510 V	; 1			0-0.5	3.3 18.5
IV	WV HGT (M) %		<del></del>		<u> </u>	2-2.5	27.5
\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	1 0-0.5	WV HGT (M) %	/ HGT (M) % WV	HGT (M) %	į	3-3.5	22.7
		0-0.5 6 6 0-	- 1 -	1	1	4-5.5	20.3
1/ ~~	2-25 23.3	1-1.5 17.6		0.5 7.4	·	≥6.0	7.7
1	3 ~ ~ / · 5 [	2-25		-1.5 29.4	; l	N=	8348
	4 5 15.6	3-25 - 1/12-		2.5 29.1	· L	Marino Area F	
10	≥6 a 10.21	1-55		3.5 15.9	Jan San San San San San San San San San S	H	_
55:	3.3	≥6.0			00	WAVE HEIGHT (M)	3
	N= 2901	N= 700-		6.0 5.6 N V [	1 JA	0-0.5 1-1.5	6.9 22.8
1		7953 N	= 3559 1	l= 1239	3 30 M	2-2.5	27.4
1 100	HGT (M) 2				27777	3-3.5	20.3
0-0	~	HGT (M) Z WV			HGT (M) Z	4~5.5	15.6
1-1	< .010-	.06	- 1 -	_		€6.0	7.1
2-2.	.5 16.0 1	16			- 2 N	)    N=	3510
3-3.5	<sup>3</sup> 28.1 2-	25 2-		, , , , , ,	- 1		
4-5.5			.5 27.5 2	-2.5 23.9 2-		7	
≥6.0	22.5 4-6		.5 24.6 3		• 1	لي	
N=	8.3	~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~	.5 21.5 4		- 6	Errz.	
50°	3890 N=	9.1 ≤0.		<u>≥</u> 6.0 7.0	≥6.0 6.6	China Contraction of the Contrac	,
1	N=	7384 N=	- 1	N= 9853	N= 3780	50	$\sim$
WYHO		_					~ ~ ~ .
0-0.5	NV HG					WY HGT (M) 2 2	~ > \
1 1 1 1 1 1 1 1	1	7 77710	T (M) % W		VV HGT (M) %	1 75 3.5	1
1-1.5	1	1.9 0-0.	- 1	-0.5 2.6 0	0-0.5 9.5	0-0.5 25.9	$\mathcal{N} \subset \mathcal{C}$
		14.9 1-1.5	2.2	-1.5 19.8	1-1.5 15.1	1 06 70.	1 /
3-3.5	4 1 - 4.3	28.4 2-2.5		-2.5 29.3	2-2.5 24.2	1 A h / O • -	1 5
	4 1 7 7.5	24.9 3-3.5		-3.5 23.5 C	3-3.5 22.9		1 >
	, _ , _ , _ , _ , _ , _ , _ , _ , _ , _	22.0 4-5.5	,	J.5 2.5	4-5.5 21.0	1 - 0 4	1 /
N= 30	77 1 -0.0	8.0 ≥6.0		1	>6.0	' 1 615.	1 1
45-	/3   N=	222-1		≥6.0 8.0 \	N= 12796	)   N-	-
		3308 N=	3436	N= 5054	17		1 1
V						_	\
<b>1</b>							
November						21 Wave Height T	hresholds
					_		

Marine Area C

WAVE HEIGHT (M)

0-0.5

1-1.5

3

9.8

30.0

Marine Area D

0-0.5

1 - 1.5

WAVE HEIGHT (M)

2

4.0

20.9

							11-477
Marine Area A		Marine Area B		Marine Area C		Marine Area D	
WAVE HEIGHT (M)	3	WAVE HEIGHT (M)	3	WAVE HEIGHT (M)	· · · · · · · · · · · · · · · · · · ·	WAVE HEIGHT (M)	<u>%</u>
0-0.5	15.4	0-0.5	7.6	0-0.5	7.0	0-0.5	4.1
1-1.5	36.9	1-1.5	29.9	1-1.5	25.1	1-1.5	18.5
2-2.5	22.4	2-2.5	27.3	2-2.5	28.4	2-2.5	29.0
3-3.5	13.5	3-3.5	16.9	3-3.5	18.8	3-3.5	21.9
4-5.5	9.8	4-5.5	12.6	4-5.5	15.9	4-5.5	19.0
≥6.0	2.1	≧6.0	5.8	≧6.0	4.8	≧6.0	7.5
N=	572	N=	2674	N=	1669	N=	5712
		<u> </u>		<u> </u>			
160°		/(150°	140-		130	Marine Area E	
	1 15	Sound Sound			•	WAVE HEIGHT (M)	3
For h	1	- 30 V			1	0-0.5 1-1.5	2.6 17.0
1/00	WV HGT (M) Z		<del></del>		į	2-2.5	27.8
	0-0.5	7.0	GT (M) 🐉 💆	V HGT (M) %	Į	3-3.5	22.2
1// 1	1-1.5 20	5.2 0-0.	.5 4.3 0	-0.5 6.3		4-5.5	21.1
1/200	* - < .5 ne 1	1-1.5 13.4 1-1.	5 21.6 1	1-1.5 26.9	1	≥6.0 N=	9.3 8179
I wan	7-3.5	2-2.5 27.5 2-2. 3-3.5 24.4 3-3		-2.5 27.6	3	···-	
	- 1351	A F [3 3.	5 19.5 3	ر 3.5 مر 17.8 م	لي الم	Merine Area F	
·	3.0 [	>60 21.3 4~5.	5 17.7 4	-5.5 16.6 N	765	MAVE HEIGHT (M)	*
55.	V= 2197	0.0 ∤ ≥6.0	7.5	≥6.0 4.9 N 4;		0-0.5	7,1
		N= 8298 N=	3325	N= 1194	5 30 (4 )C	1-1,5 2-2,5	23.3 25.8
/ WV H	GT (M) Z		•		23007	3-3.5	20.3
10-0.	~ ' '	V HGT (M) 7 WV HG			V HGT (M) %	4-5.5	16.4
1-1.5	_ <.01 n.	-0.5	1	-	-0.5 4.1	≧6.0	7.2
2-2.5	15.91 1	-15	•	)- 0.3	1-1.5 21.5	) N=	3330
3-3.5	20.91 2	25 20 1-10			-2.5 26.6		
4-5.5	~<.91 7_	35 23.1 2-2.3		2 2.0	-3.5 21.6		
≥6.0	22.5 4-	5.5			1-5.5 18.7	5	
<i>N</i> =	/.8 / Sc	0 9.5 4-5.5	20.0	2	≥6.0 7.5	~~~~	
500	3534 N	8.6 ≥6.0 6990 N=	8.4	≥6.0 7.6 N= 9917	N= 3509	ST. T.	1
		14_	3995	N= 991/			
WV HGT (M)	3 WV 45					WV HGT (M) 3	1 /2 /2
0-0.5	WVHG	T (M) % WV HGT	(M) %	WV HGT (M) %	WV HGT (M) %		
1-1.5		201005	-	)-0.5 3.9	0-0.5	1-1.5 23.0	
$\frac{1}{2}$ $\frac{2}{2}$ $\frac{1}{3}$ $\frac{1}{3}$	` ~ ' · · ·	16 4 1 1 15	16.8	1-1.5 20.2	1-1.5 15.8	2-2.5 29.3	1
3-3.5 23		29.2 2-2.5		2-2.5 28.8	2-2.5 26.3		En Service
4-5.5 19 ≥6.0 7		23.7 3-3.5		3-3.5 23.5	3-3.5  24.0	1 . 65 13	1 ===
7.	11	21.1 4-5.5		4-5.5 18.0	4-5.5 20.2	1 / 1 4	(
280	≥6.0 N=	6.7 ≥6.0	6.4	≥6.0 5.6	≥6.0 4.9	/ 1 1 50 50 TO	1
160	1 '-	2982 N=	3337	N= 4681	N= 1248		

21 Wave Height Thresholds

11-478

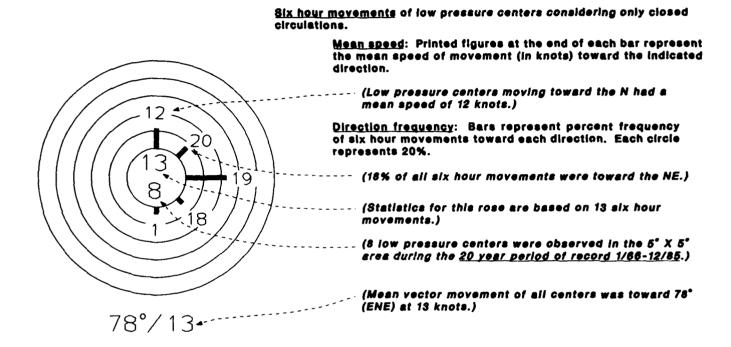
22 Legend

Legend 22

## Map 22. Low pressure center movement

ROSE - Percent frequency of low pressure center movement.

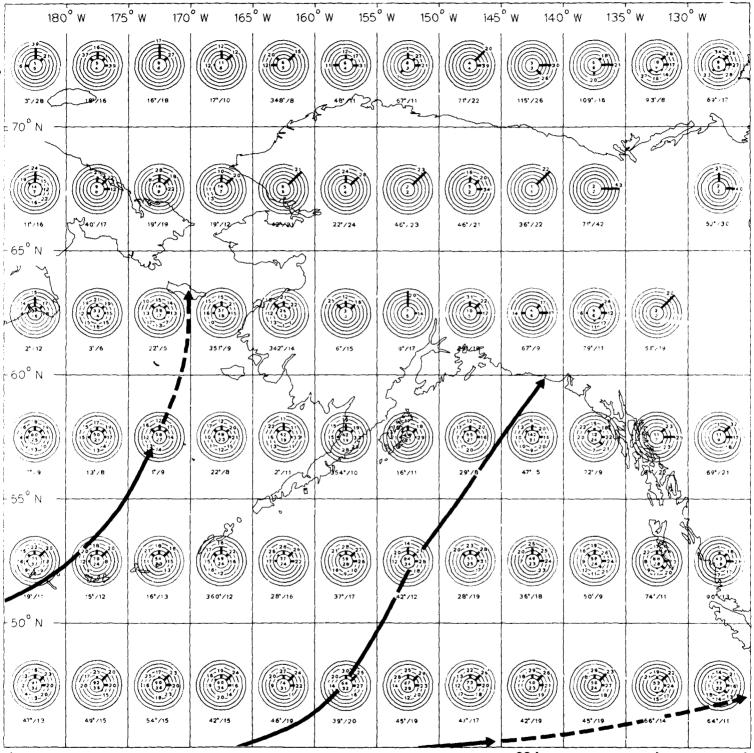
BLACK ARROWS — Preferred storm tracks (solid for primary tracks, dashed for secondary tracks). Exact Cylindrical Equidistant Projection



Refer to the introductory text for Section II for more information on low pressure center movement and preferred storm tracks.

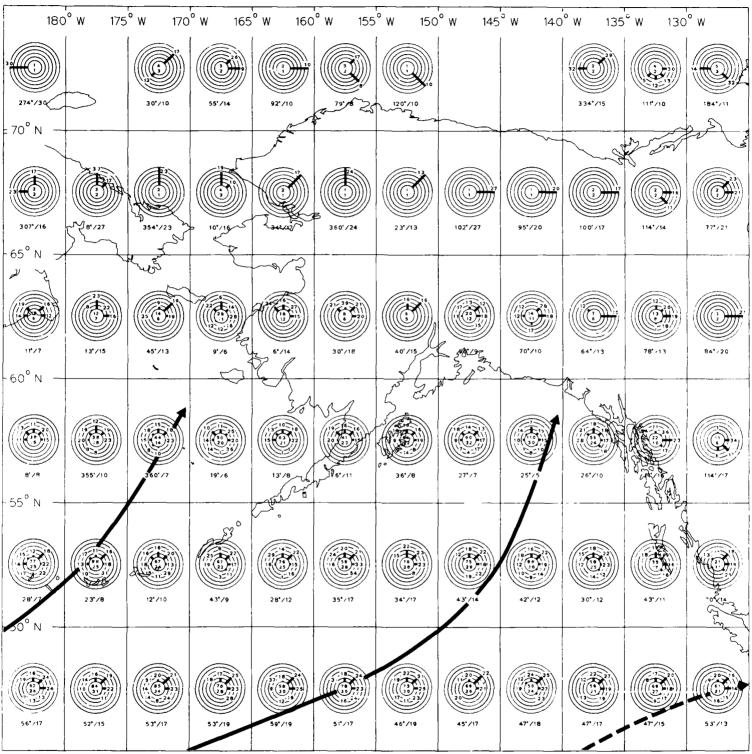
22 Legend

Legend 22



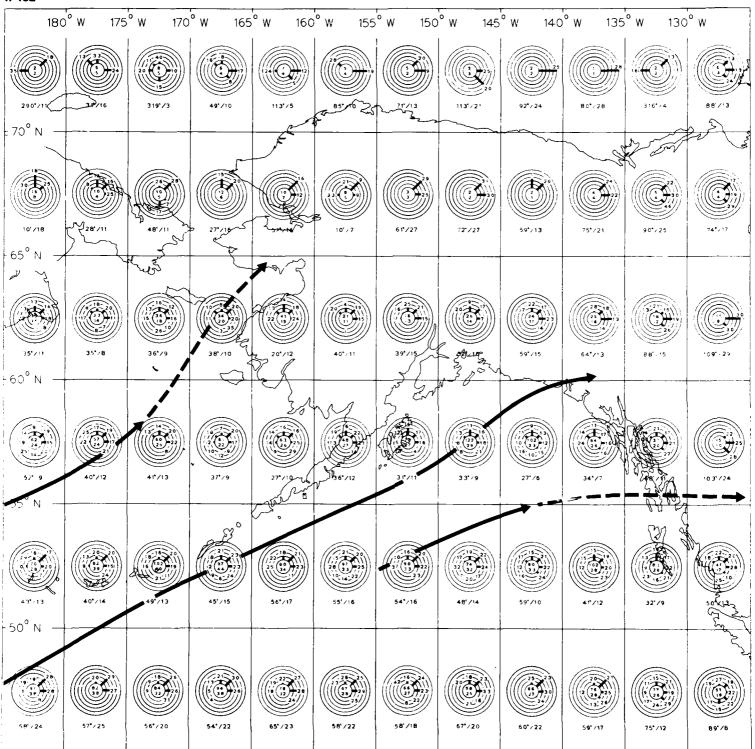
January

22 Low pressure center movement



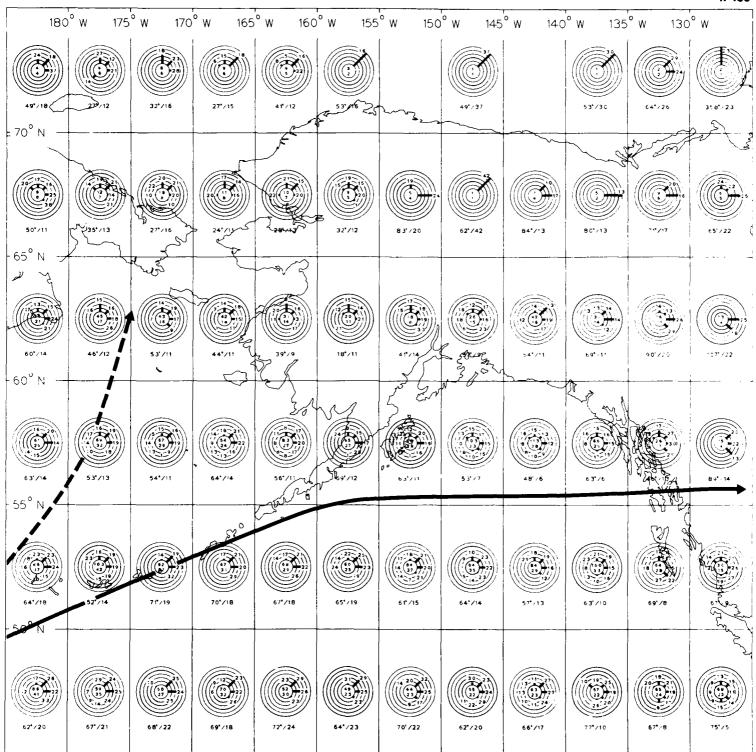
22 Low pressure center movement

**February** 



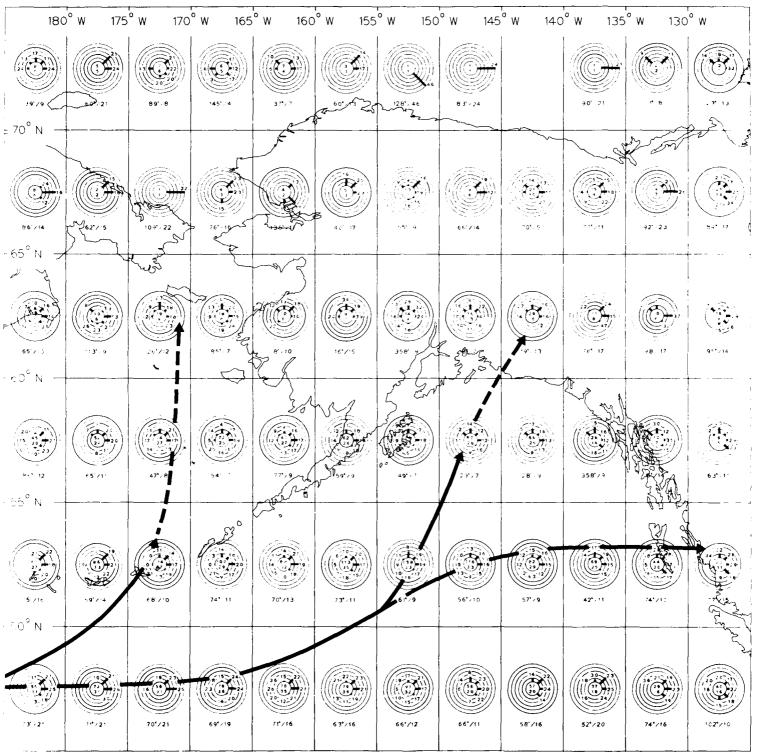
March

22 Low pressure center movement



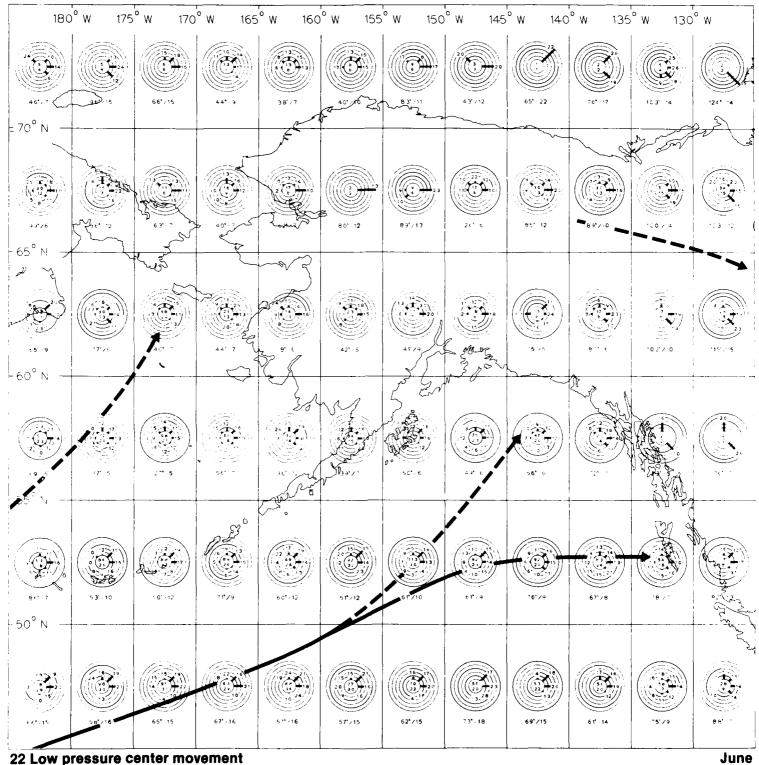
22 Low pressure center movement

1

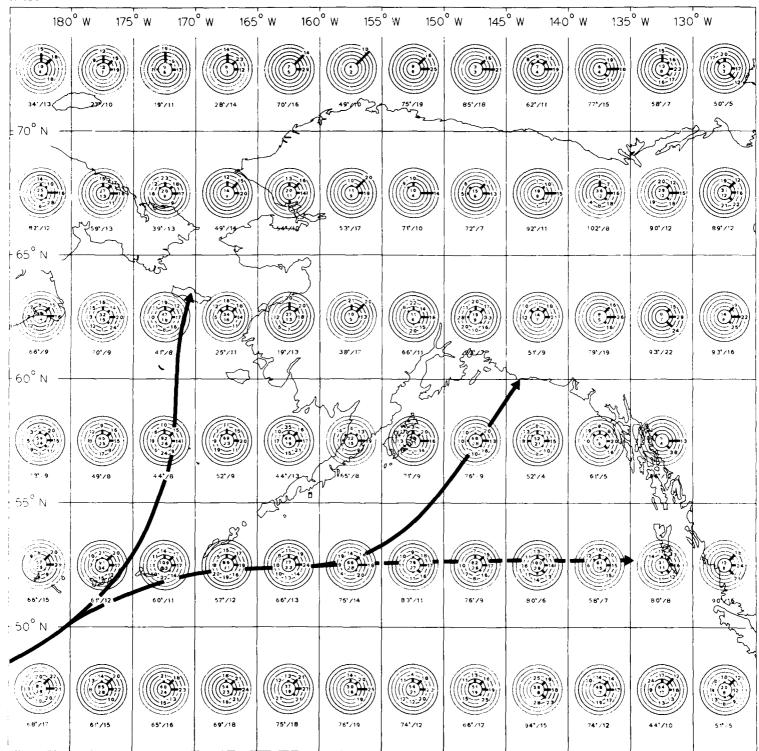


Mav

22 Low pressure center movement

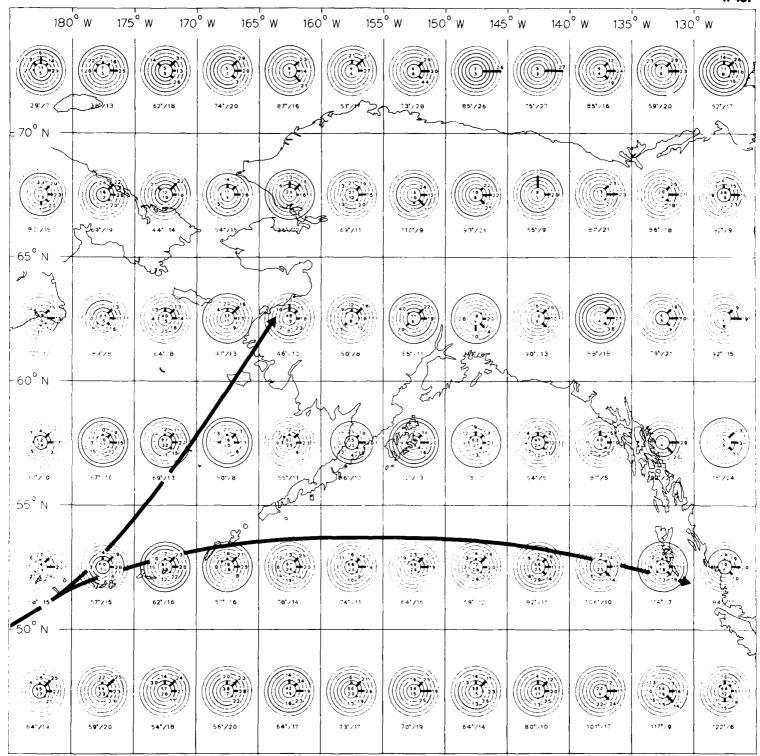


22 Low pressure center movement



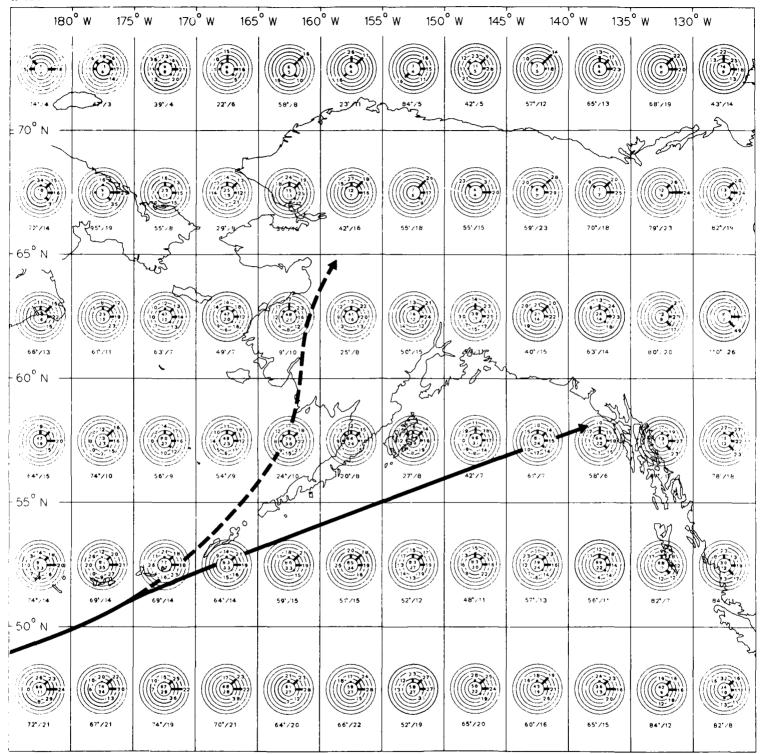
July 22 Low pressure center movement

11-487



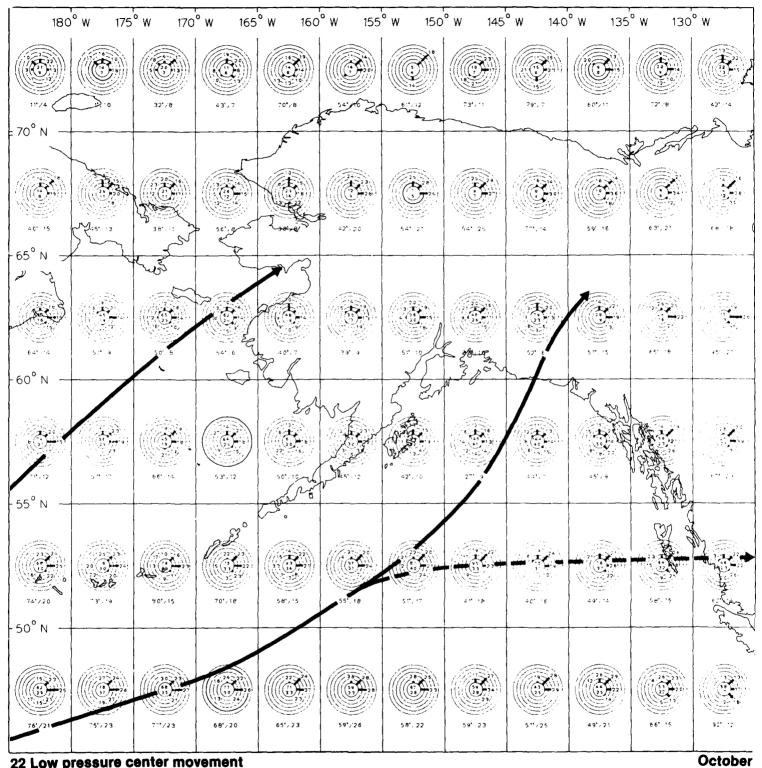
22 Low pressure center movement

**August** 



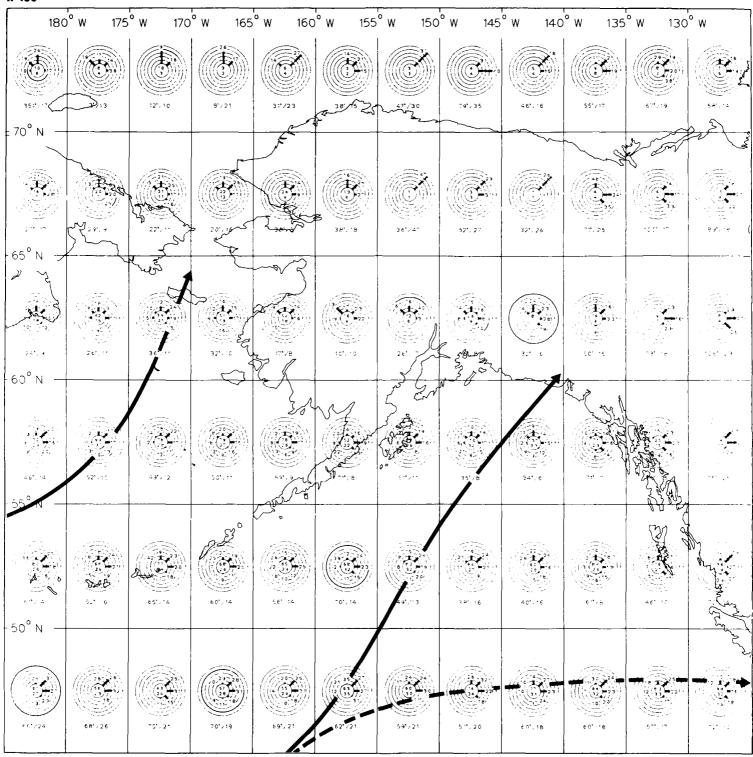
September

22 Low pressure center movement



22 Low pressure center movement

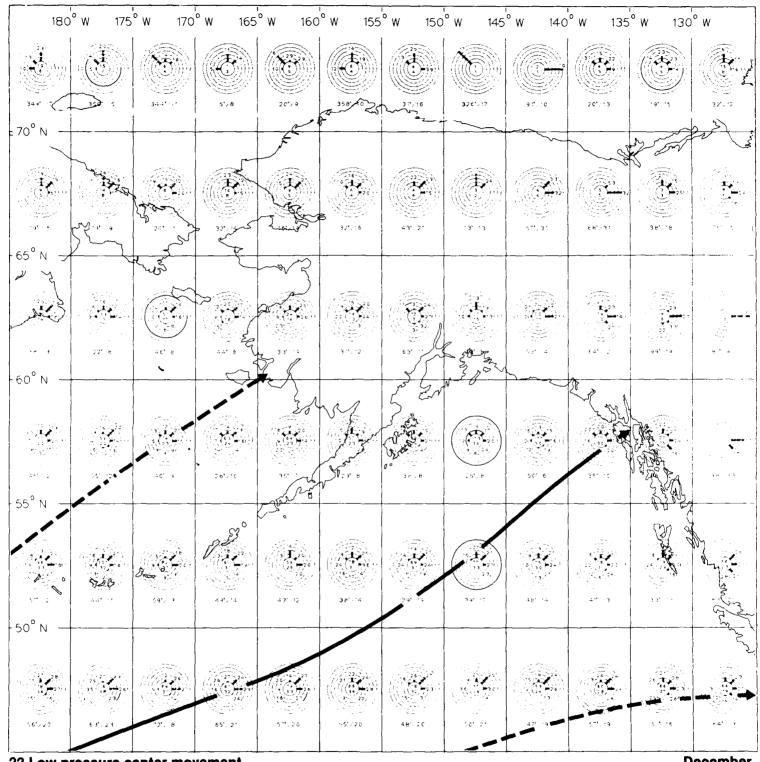
11-490



November

22 Low pressure center movement

11-491



22 Low pressure center movement

December

# Set 23. Persistence of wind speed and wave height, seasonal

#### WIND SPEED DURATIONS - SEASONAL

						SI	QU	EN	CE	NIJ	M B	ER						LA	TITUDE	AND LOP	IGITUDE
y≩64	2	1		,				Ţ	Г		Г	Г				Г	24 – 1	4	8	8	4332
	24	10	4	1		1						$\Box$				,	(36-1)	40	66	66	4332
41	59	31	16	7	4	1		3									48 - 3	121	247	247	4332
	85	52	50	22	22	9	3	2	4		2				1		90-1	252	701	709	4336
≧ 28	68	57	57	34	27	19	12	13	6	9	4	6		3	2	5	144-1	322	1353	1365	4362
4.2	9	63	33	35	30	21	26	15	4	15	10	8	9	9	3	22	752-1	392	2176	2201	4408
<b>&gt;</b> 11	ود	50	27	30	23	24	11	12	14	9	18	11	10	6	3	52	288 - 1	355	2884	2981	4432
≥11	30	17	18	21	21	12	11	8	2	6	5	5	7	5	3	89	558-1	260	3747	4015	4674
≥ 7	6	(6)	4	6	8	4	9	5	3	4	4	1	2	3	2	<b>B</b> 5	804-1	152	4079	4471	4753
≥ 4	4	11	3	1		5		3	1			1		1	1	54	SEA-1	(75)	(4483)	(5174)	(5269)
	٠.	12	18	24	30	36	42	48	54	60	66	72	78	64	90	96+	MAX	TE.	7	T.	TH

HOURS DURATION OF EVENTS -6 Events with wind speeds ≥7 kn. persisted 12 hours; 85 events persisted ≥96 hours.

The longest event with wind speeds ≥4 kn. persisted for 3 months or more and it occurred 1 time. \_ \_ \_ \_ \_

The longest event with wind speeds ≥48 kn. persisted 36 hours and it occurred 1 time. -----

75 Events had wind speeds ≥4 kn. which comprised a total of 4,483 hindcasts .-----

5,269 Hindcasts were examined, and 5,174 had wind

#### **WAVE HEIGHT DURATIONS - SEASONAL**

						SE	Qu	EN	CE	NU	мВ	ER						LA	TITUDE .	AND LON	IGITUDE
₩≥64															Γ.		·				4331
^ √ ≥ 48	Ĺ																			1	4331
E ≥ 34	7	6	9	1	t								Ι.				(30-1)	24	55	65	4331
<sub>H</sub> ≧ 28	11	13	12	10	6	5	2	1	2								54-2	62	213	225	4331
£ ≩ 20	14	15	9	13	15	20	13	5	6	2	6	7	4	1	2	2	114-1	134	804	824	4336
l ≥ 16 G	21	11	14	10	17	13	13	19	12	3	10	9	3	3	3	18	312-1	179	1397	1432	4339
H ≥ 12	18	9	19	11	9	13	8	12	10	8	7	9	6	8	3	48	396 – 1	198	2275	2345	4367
T≩ 9	19	9	5	9	10	6	13	6	10	9	4	3	2	6	1	68	426-1	180	2989	3140	4423
, ≥ 6	6	(8)	4	3	6	3	3	2	2		7	3	3	5	2	(65)	1140-1	122	3506	3977	4515
(≥ 3	3		1			-							1			22	SEA- 1	(28)	(3828)	(5137)	(5196)
	4	12	18	24	30	36	42	46	54	60	66	72	78	84	90	96+	MAX	TE	T-6	7.	THI

HOURS DURATION OF EVENTS -8 Events with wave heights ≥6 ft. (1.8m) persisted 12 hours; 65 events persisted ≥96 hours. The longest event with wave heights ≥3 ft. (0.9m)

persisted 3 months or more and it occurred 1 time.--The longest event with wave heights ≥34 ft. (10.4m) persisted for 30 hours and it occurred 1 time. --28 Events had wave heights ≥3 ft. (0.9m) which comprised a total of 3,828 hindcasts.-----

5.196 Hindcasts were examined, and 5.137 had wave heights ≥3 ft. (0.9m).-----

Durations for a particular season extend from the time the event begins (or the first day of the season if already in progress), and terminate when the event ends. Events become undefined if missing data is encountered. Durations lasting a season or more are categorized together. Durations may persist into the next season.

#### ABBREVIATIONS

MAX: Maximum duration or interval, followed by the number of occurrences.

TE or TI: Total number of events or intervals

Total number of hindcasts included in TE or TI.

T\* Total number of hindcasts that met the stated criteria.

TH: Total number of hindcasts examined.

#### WIND SPEED INTERVALS - SEASONAL

						SE	QL	EN	CE	NU	мВ	ER						LA	TITUDE A	ND LON	GITUDE
w≥64	1		1													9	(SEA-7)	11	2761	4565	4573
1 ≩48	1	1		3	3			1					1	2		33	SEA-6	44	4810	5951	6017
N D ≥ 41	7	5	3	8	3	4	3	2	6	2	4	5	5	5	2	61	SEA-1	125	4325	4887	5134
ັ≩3 <del>4</del>	31	26	18	26	11	12	10	10	9	7	7	6	3	8	6	66	966-11	256	3613	3819	4524
S ≥ 28	50	34	34	33	17	16	15	15	11	ຸ ອົ	11	7	10	6	4	51	654-1	322	2916	3035	4370
E ≥ 22	87	59	52	37	. 9	21	10	9	20	1.	10	ĥ		1:	4	23	348 - 1	382	2157	2211	4775
Ē ≩ 17	06	(63)	48	30	23	20	13	12	10	9	2	3	1	Π	2	(1)	216-1	352	1440	1452	4333
D ≥ 11	103	60	35	29	9	6	2	2	2	2	1	1	Г			21	132-11	254	655	659	4332
k ≧ 7	90	31	10	Ę	5	2	2	1	1			1	1	Ī		1	(72-1)	148	282	282	4332
<sup>n</sup> ≥ 4	52	12	2	2	1					Г							30 – 1	(69)	(95)	(95)	(4332)
	-	12	118	24	30	36	42	48	54	60	66	72	78	84	90	96+	LMAX	- 11		Tel	TH

HOURS INTERVAL BETWEEN EVENTS 1-There were 63 12-hour intervals between events of wind speeds ≥17 kn.; 11 intervals persisted 96 hours or more. The longest interval between events of wind speeds ≥7 kn. was 72 hours and it occurred 1 time-----The longest interval between events of wind speeds ≥64 kn. was 3 months or more and it occurred 7 times.--There were 69 intervals between events of wind speeds ≥4 kn. which comprised a total of 95 hindcasts.--4,332 Hindcasts were examined, and 95 had wind speeds

#### WAVE HEIGHT INTERVALS - SEASONAL

						Si	QL	EN	CE	NU	M B	ER						LA	TITUDE A	ND LON	IGITUDE
₩≥64	Г	Г		1	$\Box$		Г	ľ	Г							8	(SEA-8)	9	2948	4393	4394
^ √ ≧ 4B	1		2								Γ					11	SEA-B	14	3796	5241	5256
E ≧ 34		2		2		1				1				1		40	SEA-5	47	4394	5633	5758
H ≧ 28	5	3	3	2	5	1	3	4	2	3		1	1	2	1	57	SEA-1	93	4121	4950	5314
E ≧ 20	14	16	8	15	9	6	3	7	2	2	7	4	4	4	1	77	582-1	1179	3166	3298	4474
	25	21	16	14	11	8	15	7	10	7	8	В	3	5	8	47	498-1	213	2502	2562	4433
G H ≥ 12	26	24	33	20	12	16	7	11	11	4	5	8	3	3	3	22	414-1	208	1642	1689	4370
T≥ 9	35	(25)	14	10	9	12	11	8	2	4	3	4	1	2		$\odot$	270-1	151	903	934	4334
, ≥ 6	24	23	10	9	11	3	2	2	2	5	2	Г			Γ	41	(144-)	97	406	412	4333
(≥ 3	6	2	2	2	2	1											36 – 1	(15)	(40)	(40)	(4333)
	6.	12	18	24	3.0	3.6	47	48	54	6.0	6.6	72	78	H 4	9.0	96+	HAX	TA	T	Tel	THA

69 12 18 24 30 36 42 48 54 60 66 72 78 84 90 96+ MAX TA -There were 25 12-hour intervals between events of wave heights ≥9 ft. (2.7m).; 11 intervals persisted 96 hours or more.

The longest interval between events of wave heights ≥6 ft. (1.8m) was 144 hours and it occurred 1 time.---The longest interval between events of wave heights ≥64 ft. (19.5m) was 3 months or more and it occurred 8 times. --

There were 15 intervals between events of wave heights ≥3 ft. (0.9m) which comprised a total of 40 hindcasts--4,333 Hindcasts were examined, and 40 had wave heights <3 ft. (0.9m).-----

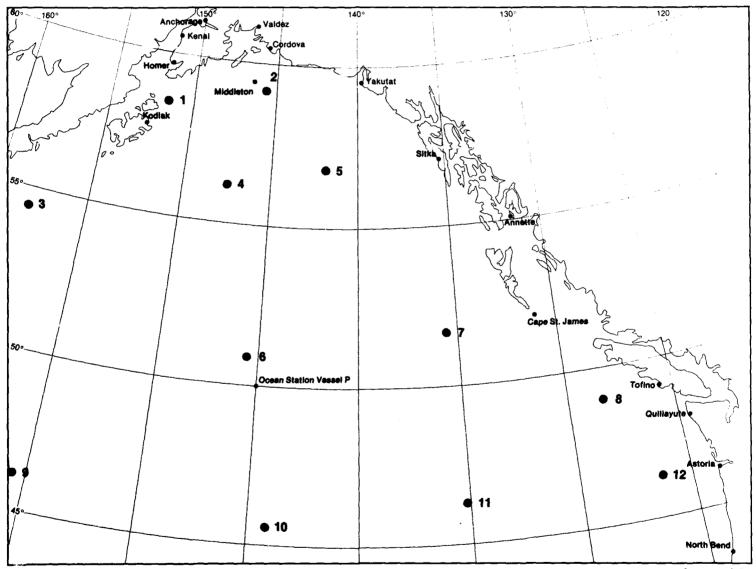
Intervals for a particular season extend from the time the event ends (or the first day of the season if the event is not in progress). and terminate when the event begins. Intervals become undefined if missing data is encountered. Intervals lasting a season or more are categorized together. Intervals may persist into the next season.

feet meters	0	3,	6	9	12	16	20	28	34	48	64
meters	0.0	0.9	1.8	2.7	3.7	4.6	6.1	8.5	10.4	14.6	19.5

23 Legend

Legend 23

The SEA code in the MAX column of the tables refers to season, i.e., the longest event or interval persisted for three months or more. Since the extreme wave statistics are based on the assumption of winds blowing over open water without fetch restrictions, the wave height extremes are likely to be unrealistically high during the winter season for those few grid points located within an area having a probability of ice restricting the development of waves. Refer to the ice statistics in sets 17-19. Refer to the introductory text in Section II for additional information on persistence of wind and waves.



23 Legend Legend 23

1 58.5N 151.6W	2 59.2N 145.7W
w≥64 2 6-2 2 2 4333	w≥64 1
≥48 5 4 3 1 30-1 13 27 27 4333	24-1 11 22 22 4333
	N ≥ 41 8 14 4 4 2 1 36-1 33 80 80 4333
U	
≥ 34 35 28 22 14 11 4 1 1 1 1 1 72-1 118 328 328 4333	
S≥28 45 32 32 21 21 11 5 10 3 4 2 2 2 2 126-1 192 755 756 4333	S ≥ 28 64 36 34 22 9 9 9 4 5 4 2 1 1 1 1 114-1 202 690 692 4333
E ≥ 22 51 33 46 35 26 19 18 19 9 9 5 4 5 3 11 180-1 293 1541 1547 4333	E ≥ 22 63 37 38 36 22 16 18 6 6 5 5 4 5 3 3 12 216-1 279 1377 1396 4336
5 ≥ 17 39 37 31 34 34 22 14 13 16 8 6 7 6 9 7 31 354-1 314 2301 2360 4342	E ≥ 17 36 38 34 41 26 22 20 11 12 12 6 6 6 6 3 5 27 372-1 305 2102 2151 4337
≥11 34 24 14 14 20 10 18 14 18 / 110 0 / / / 4 00 522 - 1 2 0 1 330 330 4304	2 11 39 10 25 15 20 11 9 21 8 9 8 7 1 7 63 576-1 293 3166 7275 4375
k ≥ 7 16 13 14 13 7 6 6 6 6 9 7 4 6 7 3 2 87 720-1 206 3871 4005 4442	k ≥ 7 19 16 16 10 12 10 5 10 6 3 5 5 5 3 9 82 834-1 216 3736 3948 4461
$n \ge 4 \ 3 \ 4 \ 6 \ 2 \ 4 \ 2 \ 1 \ 5 \ 1 \ 1 \ 1 \ 1 \ 2 \ 1 \ 67 \ 1602 - 1 \ 99 \ 3938 \ 4376 \ 4507$	n ≥ 4 6 5 7 4 7 1 2 5 2 4 2 2 1 1 4 72 1680 - 1 125 4047 4362 4556
6 12 18 24 30 36 42 48 54 60 66 72 78 84 90 96+ MAX TE T TH TH	6 12 18 24 30 36 42 48 54 60 66 72 78 84 90 96+ MAX TE T To TH
HOURS DURATION OF EVENTS	HOURS DURATION OF EVENTS
3 54.4N 158.1W	4 56.2N 147.5W
w ≥ 64 3 1 1 24-1 5 9 9 4 4333	w≥64 4333
<u>1 ≥ 48   14   7   5   3   1   2   1     42 - 1   33   79   79   4333   4333   42 - 1   4333   43 - 1</u>	≥48 6 1 2 1 24-1 10 18 18 4333
n ≥ 41 37  22  13   11   5   1   3   1	N≥41 17 10 7 2 1
≥ 34 46 33 24 23 9 15 9 2 3 1 1 1 1 1 20-1 168 566 570 434∠	£34 42 25 13 9 10 4 1 54-1 104 250 250 4333
S ≥ 28 62 48 45 25 29 16 11 13 9 3 1 2 1 5 162-1 270 1083 1088 4346	\$ \(\frac{1}{2} = \frac{1}{52} \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\
E ≥ 22 67 51 49 29 35 18 28 13 17 9 12 4 4 4 3 14 192-1 357 1895 1909 4349	F ≥ 22 54 47 43 40 24 18 11 13 12 4 4 2 3 2 2 8 138-1 287 1312 1324 4334
E ≥ 17 55 41 34 42 29 11 21 13 9 14 14 7 12 11 5 44 234-1 362 2645 2669 4351	E ≥ 17 61 44 30 42 23 22 19 22 11 14 7 8 7 4 5 23 222-1 342 2084 2101 4338
D ≥ 11 32 10 20 24 10 24 17 9 13 7 10 7 6 10 3 83 402-2 285 3649 3691 4465	
<del></del>	
n ≥ 4 6 1 2 3 2 2 1 1 1 1 3 1 65 1518-1 89 4316 4652 4754	$0 \ge 4$ $\boxed{7}$ $\boxed{5}$ $\boxed{3}$ $\boxed{7}$ $\boxed{5}$ $\boxed{3}$ $\boxed{2}$ $\boxed{2}$ $\boxed{5}$ $\boxed{3}$ $\boxed{2}$ $\boxed{5}$ $\boxed{1}$ $\boxed{2}$ $\boxed{2}$ $\boxed{70}$ $\boxed{1.754 - 1}$ $\boxed{124}$ $\boxed{4146}$ $\boxed{4532}$ $\boxed{4719}$
6 12 18 24 30 36 42 48 54 60 66 72 78 84 90 96+ MAX TE T T+ TH HOURS DURATION OF EVENTS	6 12 18 24 30 36 42 48 34 60 66 72 78 84 90 96+ MAX TE T THE HOURS DURATION OF EVENTS
5 56.8N 141.9W	5C.9N 145.7W
w ≥ 64 4333	w≥64 43??
≥ 48 4 2 2 1 18-2 8 14 14 4333	24-1 25 42 42 4333
2 ≥4: 3 11 5 3 2 36-2 40 80 80 4333	N 341 31 37 18 5 3 1 1 1 1 36 1 85 1 190 197 4333
≥ 34 28 28 18 12 5 5 3 2   54-2 i∪: 280 282 4333	D €41 31 27 16 5 3 1 36 1 6 5 16 6 7 4 333 ≥ 34 59 34 33 17 16 10 5 2 1 1 1 1 1 78 - 1 180 533 542 4333
<del></del>	<del> </del>
± 22 55 54 34 27 17 22 18 13 9 3 8 2 3 4 4 180-1 273 1239 1261 4337	E ≥ 22 63 38 37 28 24 21 16 12 12 11 5 10 5 6 4 29 204-1 321 1965 1987 4354
E ≥ 17 58 47 40 36 14 19 23 16 21 11 12 6 7 3 1 20 240-1 334 2008 2053 4350	E ≥ 17 55 42 36 25 22 16 19 8 14 9 11 7 8 3 5 56 252-1 336 2701 2797 4355
≥ 11 27 26 22 3 24 14 18 15 9 10 9 10 8 5 3 64 276-3 313 3062 3174 4359	D ≥ 11 19 16 10 21 12 12 15 9 8 5 11 4 5 1 5 85 540-1 238 3654 3811 4479
a ≥ 7 25 13 15 12 16 12 5 11 10 9 5 5 7 5 1 90 534-1 246 3673 3851 4432	$k \ge 7 \begin{bmatrix} 16 \\ 8 \end{bmatrix} \begin{bmatrix} 8 \\ 6 \end{bmatrix} \begin{bmatrix} 5 \\ 4 \end{bmatrix} \begin{bmatrix} 4 \\ 4 \end{bmatrix} \begin{bmatrix} 6 \\ 1 \end{bmatrix} \begin{bmatrix} 6 \\ 7 \end{bmatrix} \begin{bmatrix} 3 \\ 2 \end{bmatrix} \begin{bmatrix} 2 \\ 2 \end{bmatrix} \begin{bmatrix} 1 \\ 78 \end{bmatrix} \begin{bmatrix} 654-1 \\ 157 \end{bmatrix} \begin{bmatrix} 3979 \\ 3979 \end{bmatrix} \begin{bmatrix} 4221 \\ 449? \end{bmatrix}$
n ≥ 4 3 8 6 6 3 3 6 4 4 5 1 4 2 3 2 72 960-1 132 4015 4396 4601	n ≥ 4 2 3 2 1 3 2 2 2 2 2 1 3 1 1 56 1266 - 1 83 4302 4739 4842
6 /2 18 24 30 36 42 48 54 60 66 72 78 84 90 96+ MAX TE T T# TH	6 12 18 24 30 36 42 48 54 60 66 72 78 84 90 96+ MAX TE T T- TH
HOURS DURATION OF EVENTS 7 51.7N 135.7W	HOURS DURATION OF EVENTS 8 49.0N 128.4W
w≥64 1 12-1 1 2 2 4333	w≥64 4333
W=04	W=04
349 12 12 4 2	1 2 2 10 29 1223
≥48 12 12 4 2 24-2 30 56 56 4333	1 ≥ 48 12 5 2 1 18-2 19 28 28 4333 N
3 £ 41 41 20 6 6 7 1 42-1 81 165 167 4333	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$
34 60 42 24 19 15 7 2 3 2 2 1 66-1 177 496 500 4333	N ≥ 41 34 11 7 2 1 1 1 1 42-1 57 103 103 4333 ≥ 34 41 31 24 10 5 6 4 1 1 1 1 72-1 124 333 333 4333
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$
34 60 42 24 19 15 7 2 3 2 2 1 66-1 177 496 500 4333	N ≥ 41 34 11 7 2 1 1 1 1 42-1 57 103 103 4333 ≥ 34 41 31 24 10 5 6 4 1 1 1 1 72-1 124 333 333 4333
3 ≤ 41     41     20     6     6     7     1     42-1     81     165     167     4333       ≥ 34     60     42     24     19     15     7     2     3     2     2     1     66-1     177     496     500     4333       ≥ 28     76     57     38     28     17     17     9     4     3     7     6     2     3     1     2     96-2     270     970     991     4336	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	N ≥ 41 34 11 7 2 1 1 1 1
\$\frac{3}{2} \frac{4}{4} \frac{1}{2} \frac{1}{6} \frac{6}{6} \frac{7}{7} \frac{1}{1} \frac{1}{7} \frac{1}{2} \frac{3}{3} \frac{2}{3} \frac{1}{2} \frac{1}{3} \frac	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$
2 4 1 4 1 20 6 6 6 7 1 1	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$
N = 41 41 20 6 6 6 7 1 1	N ≥ 41 34 11 7 2 1 1 1 1
N = 41 41 20 6 6 7 1 1	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$
3 4 1 41 20 6 6 7 1 1	N ≥ 41 34 11 7 2 1 1 1 1
N = 41 41 20 6 6 7 1 1	N ≥ 41 34 11 7 2 1 1 1 1
N ≥ 41 41 20 6 6 7 1 1	N ≥ 41 34 11 7 2 1 1 1 1
S ± 41 41 20 6 6 6 7 1 1	N ≥ 41 34 11 7 2 1 1 1 1
N ≥ 41 41 20 6 6 6 7 1 1	N ≥ 41 34 11 7 2 1 1 1 1
S ± 41 41 20 6 6 6 7 1 1 1	N ≥ 41 34 11 7 2 1 1 1 1
S ± 41 41 20 6 6 6 7 1 1	N ≥ 41 34 11 7 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
N ≥ 41 41 20 6 6 6 7 1 1 1	N ≥ 41 34 11 7 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
N ≥ 41 41 20 6 6 7 1 1	N ≥ 41 34 11 7 2 1 1 1 1
S ± 41 41 20 6 6 6 7 1 1 1	N ≥ 41 34 11 7 2 1 1 1 1
\$\frac{\circ}{2}\frac{4}{4}\$\frac{1}{20}\$\frac{6}{6}\$\frac{6}{7}\$\frac{1}{1}\$\frac{1}{1}\$	N ≥ 41 34 11 7 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
3 ± 4	N ≥ 41 34 11 7 2 1 1 1 1
\$\frac{\circ}{2} \times 41 \\ 41 \\ 20 \\ 6 \\ 6 \\ 7 \\ 7 \\ 1 \\ 1 \\ 20 \\ 6 \\ 6 \\ 7 \\ 7 \\ 1 \\ 1 \\ 1 \\ 1	N ≥ 41 34 11 7 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
\$\frac{\chi 41}{20}\$ \( \frac{1}{6}\$ \) \( \frac{1}{7}\$ \) \( \frac{1}{8}\$ \) \( 1	N ≥ 41 34 11 7 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
\$\frac{\chi 41}{20}\$ \( \frac{1}{6}\$ \) \( \frac{1}{7}\$ \) \( \frac{1}{8}\$ \) \( 1	N ≥ 41 34 11 7 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
\$\frac{\chi 41}{20}\$ \frac{\chi 40}{20}\$ \fra	N ≥ 41 34 11 7 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
\$\frac{\chi 41}{20}\$ \$\frac{\chi 41}{20}\$ \$\frac{\chi 6}{\chi 7}\$ \$\frac{\chi 1}{\chi 1}\$ \$\frac{\chi 6}{\chi 7}\$ \$\frac{\chi 1}{\chi 1}\$ \$\frac{\chi 6}{\chi 7}\$ \$\frac{\chi 1}{\chi 1}\$ \$\frac{\chi 6}{\chi 7}\$ \$\frac{\chi 1}{\chi 1}\$ \$\frac{\chi 6}{\chi 7}\$ \$\frac{\chi 1}{\chi 7}\$ \$\frac{\chi 6}{\chi 7}\$ \$\frac{\chi 1}{\chi 7}\$ \$\frac{\chi 6}{\chi 7}\$ \$\frac{\chi 1}{\chi 7}\$ \$\frac{\chi 6}{\chi 7}\$ \$\frac{\chi 8}{\chi 7}\$ \$\frac{\chi 8}{\chi 8}\$ \$\frac{\chi 8}{\chi 8}\$ \$\frac{\chi 9}{\chi 9}\$ \$\frac{\chi 6}{\chi 9}\$ \$\frac{\chi 7}{\chi 9}\$ \$\frac{\chi 8}{\chi 8}\$ \$\frac{\chi 9}{\chi 9}\$ \$\frac{\chi 4}{\chi 9}\$ \$\frac{\chi 2}{\chi 2}\$ \$\frac{\chi 6}{\chi 9}\$ \$\frac{\chi 1}{\chi 1}\$ \$\frac{\chi 6}{\chi 1}\$ \$\frac{\chi 1}{\chi 1}\$ \$\frac{\chi 6}{\chi 1}\$ \$\frac{\chi 1}{\chi 1}\$ \$\frac{\chi 6}{\chi 1}\$ \$\frac{\chi 1}{\chi 1}\$ \$\frac{\chi 6}{\chi 1}\$ \$\frac{\chi 1}{\chi 1}\$ \$\frac{\chi 9}{\chi 1}\$ \$\frac{\chi 6}{\chi 1}\$ \$\frac{\chi 1}{\chi 1}\$ \$\frac{\chi 6}{\chi 1}\$ \$\frac{\chi 1}{\chi 1}\$ \$\frac{\chi 9}{\chi 1}\$ \$\frac{\chi 6}{\chi 1}\$ \$\frac{\chi 1}{\chi 1}\$ \$\chi	N ≥ 41 34 11 7 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
\$\frac{2}{2}\$\frac{1}{4}\$\frac{1}{2}\$\frac{0}{6}\$\frac{6}{6}\$\frac{7}{7}\$\frac{1}{1}\$\frac{1}{6}\$\frac{1}{6}\$\frac{7}{6}\$\frac{1}{2}\$\frac{1}{1}\$\frac{1}{6}\$\frac{1}{6}\$\frac{1}{6}\$\frac{7}{6}\$\frac{1}{2}\$\frac{1}{1}\$\frac{1}{1}\$\frac{1}{6}\$\frac{1}{6}\$\frac{1}{6}\$\frac{7}{3}\$\frac{1}{3}\$\frac{1}{2}\$\frac{1}{4}\$\frac{1}{9}\$\frac{1}{1}\$\frac{7}{6}\$\frac{1}{2}\$\frac{1}{3}\$\frac{7}{6}\$\frac{1}{2}\$\frac{1}{3}\$\frac{1}{6}\$\frac{1}{6}\$\frac{1}{6}\$\frac{1}{1}\$\frac{7}{6}\$\frac{1}{2}\$\frac{1}{3}\$\frac{1}{6}\$\frac{1}{2}\$\frac{1}{6}\$\frac{1}{6}\$\frac{1}{1}\$\frac{1}{6}\$\frac{1}{6}\$\frac{1}{3}\$\frac{1}{3}\$\fra	N ≥ 41 34 11 7 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
\$\frac{\chi 41}{20}\$ \$\frac{1}{60}\$ \$\frac{1}{42}\$ \$\frac{1}{41}\$ \$\frac{1}{20}\$ \$\frac{1}{60}\$	N ≥ 41 34 11 7 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
S ± 41	N ≥ 41 34 11 7 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
\$\frac{\chi 41}{20}\$ \$\frac{1}{60}\$ \$\frac{1}{42}\$ \$\frac{1}{41}\$ \$\frac{1}{20}\$ \$\frac{1}{60}\$	N ≥ 41 34 11 7 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
S ± 41	N ≥ 41 34 11 7 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
S ± 41	N ≥ 41 34 11 7 2 1 1 1 1
\$\frac{\chi 41}{\chi 20} \frac{\chi 6}{\chi 7} \frac{\chi 1}{\chi 1} \frac{\chi 0}{\chi 2} \frac{\chi 4}{\chi 19} \frac{\chi 5}{\chi 7} \frac{\chi 2}{\chi 3} \frac{\chi 2}{\chi 2} \frac{\chi 1}{\chi 9} \frac{\chi 5}{\chi 7} \frac{\chi 2}{\chi 3} \frac{\chi 2}{\chi 2} \frac{\chi 4}{\chi 9} \frac{\chi 2}{\chi 2} \frac{\chi 6}{\chi 7} \frac{\chi 2}{\chi 3} \frac{\chi 6}{\chi 7} \frac{\chi 2}{\chi 3} \frac{\chi 6}{\chi 5} \frac{\chi 3}{\chi 2} \frac{\chi 2}{\chi 5} \frac{\chi 6}{\chi 5} \frac{\chi 3}{\chi 2} \frac{\chi 2}{\chi 5} \frac{\chi 6}{\chi 5} \frac{\chi 3}{\chi 2} \frac{\chi 2}{\chi 5} \frac{\chi 6}{\chi 6} \frac{\chi 3}{\chi 1} \frac{\chi 6}{\chi 6} \frac{\chi 1}{\chi 1} \frac{\chi 6}{\chi 1} \frac{\chi 6}{\chi 6} \frac{\chi 1}{\chi 1} \frac{\chi 6}{\chi 1} \frac{\chi 6}{\chi 6} \frac{\chi 1}{\chi 1} \frac{\chi 6}{\chi 1} \frac{\chi 6}{\chi 6} \frac{\chi 1}{\chi 1} \frac{\chi 6}{\chi 1} \frac{\chi 6}{\chi 6} \frac{\chi 1}{\chi 1} \frac{\chi 6}{\chi 6} \frac{\chi 6}{\chi 2} \frac{\chi 6}{\chi 6} \frac{\chi 6}{\chi 2} \frac{\chi 6}{\chi 6} \frac{\chi 6}{\chi 2} \frac{\chi 6}{\chi 6} \frac{\chi 6}{\chi 2} \frac{\chi 6}{\chi 6} \frac{\chi 6}{\chi 2} \frac{\chi 6}{\chi 6} \frac{\chi 6}{\chi 2} \frac{\chi 6}{\chi 6} \frac{\chi 6}{\chi 2} \frac{\chi 6}{\chi 6} \frac{\chi 6}{\chi 6} \frac{\chi 6}{\chi 2} \frac{\chi 6}{\chi 6} \frac{\chi 6}{\ch	N ≥ 41 34 11 7 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
\$\frac{\chi^{\chi\}}}}}}}}\enimation}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}	N ≥ 41 34 11 7 2 1 1 1 1

1 58.5N 151.6W	
	2 59.2N 145
04 10 SEA-8 10 3304 4749 4751 48 2 1 1 1 16 SEA-6 20 4187 5458 5485	w ≥ 64 9 SEA - B 9 2986 4388 436 1 ≥ 4B 1 1 1 15 SEA - B 18 3674 5196 52
41 1 1 3 1 1 1 36 SEA-2 45 4122 5403 5491	
34 12 9 3 2 3 6 4 2 2 3 5 1 3 2 3 63 1284-1 123 3968 4543 4871	· · · · · · · · · · · · · · · · · · ·
28 22 9 11 13 10 14 6 6 5 7 4 5 3 3 2 77 678 -1 197 3547 3789 4545	
22 45 25 27 20 26 12 14 15 11 7 12 8 11 6 7 53 516-1 299 2853 2918 4465	P
17 60 46 37 35 21 20 9 14 6 11 12 9 5 4 2 25 384 - 1 316 1995 2033 4384	
11 69 /3 39 29 12 12 8 8 9 2 2 2 2 4 2 3 108-1 276 1009 1017 4341	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$
7 99 55 19 5 8 1 7 4 1 1 1 72-1 200 434 439 4335	
4 73 10 4 2 2 4 42-2 91 127 131 4333	$k \ge 7 \frac{962}{2916} \frac{10174}{41} \frac{1}{1} \frac{1}{114-121} \frac{11}{519} \frac{522}{522} \frac{434}{433}$ $n \ge 4 \frac{76}{26} \frac{207}{7} \frac{7}{1} \frac{1}{11} \frac{1}{11} \frac{1}{118} \frac{193}{193} \frac{194}{433}$
6 12 16 24 30 36 42 4P 54 6- 56 72 78 d4 90 96+ MAX TI T To TH	6 12 18 24 30 36 47 48 54 60 66 72 78 84 40 97 + WAX TI TE TO
HOURS INTERVAL BETWEEN EVENTS	HOURS INTERVAL BETWEEN EVENTS
3 54.4N 158.1W 4 12 SEA-7 12 3623 5185 5194	4 56.2N 147.5 w≥64 8 SEA-8 6 2944 4369 438
B 3 1 1 1 1 32 SEA 2 39 4336 5525 5604	¥248 1 1 1 13 SEA-7 16 3697 5295 531
1 7 3 1 1 2 5 1 4 2 2 2 1 71 170 - 1 102 4083 4488 4728	N 241 2 1 1 1 1 1 25 SEA 2 42 4468 5424 542
113 6 9 10 18 10 6 3 4 4 3 2 2 2 6 77 762-1 175 3763 3955 45 16	D = 34 8 7
3 27 25 26 23 23 12 12 5 11 11 7 7 3 4 5 74 444-1 275 3234 3380 4455	S ≥ 28 21 11 12 16 9 6 5 5 8 9 7 4 1 4 5 73,576-1 196 3683 3894 451
69 50 47 32 23 20 19 16 12 4 5 8 5 7 6 35 378 - 1 358 24 15 2463 4356	P ≥ 22 36 29 35 22 22 9 13 10 11 6 8 3 5 7 10 62 522 - 1 288 3031 3129 445
7 71 71 58 39 22 25 17 12 6 4 4 7 4 4 3 13 186-1 360 1657 1694 4345	E ≥ 17 59 49 45 36 19 17 25 10 B 6 7 B 6 B 3 36 270-1 342 2252 2275 437
105/72/34/22 11/13/4/3/5/3/2/1/11/11/90-1/277/761/777/4336	D ≥ 11 97 67 50 27 13 14 10 6 6 6 6 3 3 3 3 1 1 1 8 132-1 315 1148 156 433
97 38 21 7 5 3 1 1 66-1 173 325 326 4333	k ≥ 7 94 49 27 16 10 4 4 1 2 1 1 84-1 209 497 500 433
<del> </del>	$n \ge 4$ $78$ $22$ $12$ $2$ $1$ $2$ $42-2$ $117$ $186$ $187$ $433$
65 12 4	6 12 18 24 30 36 42 48 54 60 66 72 78 64 90 96+ MAX TI T T. TH
HOURS INTERVAL BETWEEN EVENTS	HOURS INTERVAL BETWEEN EVENTS
5 56.8N 141.9W	6 50.9N 145 W ≥ 64 8 SEA-8 8 2944 4369 436
14 SEA-8 15 3748 5117 5131	W = 07   0   3EA-6   6   2944   4369   4369   1   27   SEA-6   3!   3909   5564   562
1 1 2 1 1 2 37 SEA-5 45 4484 5665 5745	N 241 6 1 4 4 1 4 3 1 3 2 1 1 1 7 2 58 5FA 3 93 4512 5152 533
10.5 4 3 4 2 2 5 2 1 2 3 2 1 2 60 SEA-1 108 4592 4999 5281	D ≥ 34 18 17 8 7 13 8 6 2 4 5 4 6 8 2 5 72 1020 - 1 185 3932 4187 472
20 10 9 8 5 4 7 2 6 6 3 8 1 2 4 82 684 - 1 177 3804 3979 46 14	S ≥ 28 40 29 28 18 20 14 11 8 14 6 3 5 7 3 6 66 426 - 278 3254 3316 446
20 10 9 8 5 4 7 2 6 6 3 8 1 2 4 82 684-1 177 3804 3979 4614 31 31 37 13 12 17 12 16 7 9 4 9 4 5 1 68 546-1 276 3145 3216 +473	P ≥ 22 73 37 36 25 18 18 18 14 5 9 11 8 4 3 2 41 384- 322 2385 2417 438
60 59 34 28 26 21 19 11 14 5 6 2 6 3 2 41 300-1 337 2321 2363 4399	E ≥ 17 96 67 31 41 18 15 17 10 6 1 8 4 4 1 4 16 246 - : 339 :564 :1586 : 43€
92 64 38 32 24 20 7 7 7 5 6 1 2 5 1 3 174-1 314 1188 1195 4343	0 ≥ 11 98 48 77 23 11 9 4 5 1 1 1 1 2 0 1 96-1 23 671 673 473
7 1 1 56 32 16 6 5 7 2 2 1 1 1 1 108-1 241 580 583 4335	k ≥ 7 87 29 20 8 2 3 1 1 60-1 150 275 277 433
82 24 10 4 2 1 1 1 54-1 124 203 205 4333	n ≥ 4 59 12 5 1 24-1 77 102 103 433
6 .2 18 24 30 16 42 40 54 60 00 TT 78 H4 90 96+ MAX TI T TA TH	6 :2 18 24 30 36 42 48 54 60 66 72 78 d4 90 96+ MAX To The The
HOURS INTERVAL BETWEEN EVENTS 7 51.7N 135.7W	HOURS INTERVAL BETWEEN EVENTS 8 49.0N 128
9 SEA-8 9 3029 4474 4476	w≥64 8 SEA-8 8 2944 4389 438
2 1 1 1 2 - 29 SEA-6 36 4388 5720 5776	1 ≧48 1 1 1 1 1 1 1 20 SEA-7 25 4'10 5543 55
:2 4 2 1 4 1 2 1 2 4 1 2 1 50 SEA-2 87 4875 5628 5795	N ≥41 3 4 4 1 1 4 1 1 1 1 1 1 42 SEA-4 64 4638 5606 5°C
25 15 13 8 9 6 6 3 4 9 5 3 5 3 4 65 1698-1 183 4151 4428 4928	≥34 9 6 3 7 1 5 4 6 5 4 2 2 2 2 3 66 SEA-2 130 4681 5245 55
50 27 27 17 9 14 13 7 17 5 10 5 3 4 1 68 1206-1 277 3490 3563 4551	S ≥ 28 19 13 12 19 8 5 9 10 7 6 .: 5 6 6 2 79 SEA-1 210 3987 4309 500
76 46 30 24 21 19 8 21 11 5 7 4 7 6 3 46 900-1 334 2593 2629 4404	E ≥ 22 44 34 36 27 21 25 16 12 4 11 5 6 5 3 63 921 3.2 35.7 3052 44
64 57 43 33 21 24 14 5 8 7 8 1 5 6 3 21 252-1 320 1773 1792 4342	E ≥ 17 61 58 36 30 37 20 16 11 6 5 1 7 7 4 1 37 252-1 337 2122 214 4 4 2 2 2 2 2 2 2 2 2 2 2 2 2
81 54 34 30 17 5 7 6 3 2 3 2 1 6 144-1 251 851 859 4333	D ≥ 11 91 64 44 19 17 13 7 B 3 B 4 2 2 17 17 289 1055 1070 433
83 40 25 6 6 6 4 3 2 1 2 132-1 173 409 410 4333	k ≥ 7 88 42 33 14 7 5 8 1 2 1 102-1 201 491 496 453
66 22 7 1 1 1 1 36 - 1 98 146 147 4333	n ≥ 4 66 25 6 1 3 2 36-2 103 165 166 433
6 12 18 24 30 36 42 48 54 60 66 72 78 84 90 96+ MAX 71 T T+ TH HOURS INTERVAL BETWEEN EVENTS	5 12 18 24 30 36 42 48 54 60 66 72 78 84 90 96+ MAX TI T THE HOURS INTERVAL BETWEEN EVENTS
9 46.3N 156.CW	
1 1 9 SEA-7 11 2761 4565 4573	w≥64 9 SEA-7 9 2862 4378 438
1 1 3 3 1 1 2 33 SEA-6 44 4810 5951 6017	1 ≥48 2 1 1 25 SEA-6 29 3963 5216 525
7 5 3 8 3 4 3 2 6 2 4 5 5 5 2 61 SEA-1 125 4325 4887 5134	N ≥41 8 4 3 3 4 1 2 1 3 5 1 2 52 SEA-4 89 4824 5780 596
31 26 18 26 11 12 10 10 9 7 7 6 3 8 6 66 966-1 256 3613 3819 4524	≥34 16 13 7 14 8 9 8 8 6 7 8 4 4 3 1 70 SEA-2 186 4443 4733 529
50 34 34 33 17 16 15 15 11 8 11 7 10 6 4 51 654-1 322 2916 3035 4370	S ≥ 28 37 29 25 18 29 12 16 8 11 8 3 5 4 7 3 65 582-1 280 3212 3306 448
87 59 52 37 19 21 10 9 20 11 10 8 7 3 4 23 348-1 380 2157 2211 4336	E = 22 79 48 39 23 16 25 16 9 6 9 16 4 5 4 3 39 396-1 341 2272 2310 440
10663 48 30 23 20 13 12 10 9 2 3 2 11 216-1 352 1440 1452 4333	E ≥ 17 83 43 47 31 27 13 13 14 10 6 4 4 2 4 2 9 210-1 312 1399 1431 43
0360 35 29 9 6 2 2 2 2 1 1 2 2 132-1 254 655 659 4332	D ≥ 11 77 49 32 18 10 10 2 5 2 1 1 102-1 207 561 565 43
90 31 10 5 5 2 2 1 1 1 1 72-1 148 282 282 4332	$k \ge 7$ 55 31 14 4 3 5 1 5 54-1 113 229 233 43.
52 12 2 2 1 30-1 69 95 95 4332	n ≥ 4 42 10 2 1 1 1 42-1 56 79 80 43:
6 12 16 24 30 36 42 48 54 60 66 72 78 84 90 96+ MAX TI T T+ TH HOURS INTERVAL BETWEEN EVENTS	6 12 18 24 30 36 42 48 54 60 66 72 78 d4 90 96+ MAX TI T TA TH HOURS INTERVAL BETWEEN EVENTS
11 46.3N 135.2W	12 46.3N 126.
9 SEA-8 9 3046 4491 4492	w≥64 B SEA-8 8 2944 4389 43
1 2 2 1 2 5EA-8 31 4450 5683 5726	≥48 2 1 1 1 20 SEA-6 24 3798 5724 575
2 2 1 2 1 3 1 2 1 1 2 3 48 SEA-4 69 4670 5698 5829	N ≥ 41 3 1 2 1 2 2 2 1 1 1 36 SEA-4 52 4622 5449 555
16 10 8 8 4 7 7 4 10 2 3 2 2 6 2 70 SEA-1 161 4414 4747 5159	≥34 5 7 4 2 5 2 5 4 3 1 1 5 3 2 59 SEA-3 108 4819 5566 584
31 34 23 14 18 11 10 14 9 10 4 5 4 2 6 71 900-1 266 3413 3547 4488	S ≥ 28 21 19 13 10 11 9 8 11 7 1 8 8 6 1 5 74 SEA-1 212 4137 4363 50
67 56 37 20 31 19 18 12 9 7 8 1 7 2 5 45 864 1 344 2534 2581 4384	E ≥ 22 49 37 20 28 18 13 13 14 15 11 8 2 2 2 7 63 870-1 302 3232 3252 466
83 45 59 31 23 16 19 8 3 6 11 2 3 4 4 15 354-1 332 1668 1690 4352	E ≥ 17 65 48 34 33 21 22 17 13 11 6 3 3 4 3 1 45 270-1 329 2213 2230 43
88 53 31 21 7 6 5 7 5 5 1 2 1 3 132-1 235 743 757 4340	D ≥ 11 81 68 52 26 26 16 4 5 6 6 3 3 1 3 6 132-1 306 1127 1129 433
74 30 23 2 4 3 3 1 1 1 102-1 142 306 307 4333	k ≥ 7 93 51 28 16 5 5 2 3 1 1 1 1 66-1 206 466 467 433
4 40 12 1 4 2 1 36-1 60 99 100 4333	n ≥ 4 74 15 10 2 3 1 36 - 1 105 163 164 433
6 12 18 24 30 36 42 48 54 60 66 72 78 84 90 96+ MAX T1 T T0 TH	6 12 18 24 30 36 42 48 54 60 66 72 78 84 90 96+ MAX TI T Tw TH
	6 12 18 24 30 36 42 48 54 60 56 72 78 84 90 96+ MAX TI T TO THE HOURS INTERVAL BETWEEN EVENTS

1 58.5N 151.6W w ≥64 4241	2 59.2N 145.7W w≥64 4241
≥48 1 1 1 18-1 2 5 5 4241	1≥48 4241
N ≥ 41 1 2 2 1 1 30-1 7 20 20 4241	N ≥ 41 1 1 1 12-1 2 3 3 4241
≥34 9 7 4 2 2 1 1 60-1 25 63 63 4241	≥34 4 3 4 1 1 1 36-1 13 33 33 4241
S ≥ 28   16   11   21   4   2   4   4   1	S ≥ 28 14 12 7 4 2 4 36-4 43 109 109 4241
E = 22 38 18 22 18 14 10 9 4 1 1 1 1 90-1 137 486 492 4241	E ≥ 22 30 19 16 16 9 5 6 3 1 1 1 B4-1 107 355 356 4241
E ≥ 17 36 27 32 31 19 24 11 16 8 3 2 1 3 2 4 4 138-1 219 1031 1045 4241  D≥ 11 48 32 33 25 36 34 17 13 10 14 10 7 9 4 4 22 716-1 318 2054 2085 4244	E ≥ 17 35 25 20 23 20 20 5 12 7 4 1 2 2 3 102-2 179 802 807 4241 D≥ 11 61 40 28 24 19 17 15 20 14 18 11 8 5 5 3 14 174-: 302 1766 1790 4244:
$k \neq 7$ $ 30 _{-1}$ $ 42 _{-2}$ $ 31 _{-1}$ $ 42 _{-2}$ $ 31 _{-1}$ $ 31 _{-1}$ $ 31 _{-1}$ $ 31 _{-1}$ $ 30 _{-1$	k ≥ 7 63 51 31 15 26 16 16 14 10 16 12 5 11 8 15 50 270 − 1 359 2806 2856 4252
n ≥ 4 25 8 9 14 10 9 6 10 8 12 9 6 3 3 9 84 576-1 225 3540 3760 4284	n ≥ 4 27 22 16 15 16 16 7 5 7 10 11 8 3 8 4 79 450-1 254 3522 3706 4289
6 12 18 24 30 35 42 48 54 60 66 72 78 84 90 96+ MAX TE T TH TH	6 12 18 24 30 36 42 48 54 60 66 72 78 84 90 96+ MAX TE T Te TH
HOURS DURATION OF EVENTS	HOURS DURATION OF EVENTS  4 56.2N 147.5W
w ≥ 64 4241	w≥64 4241
\(\geq 48 \  10  \  1  \  1  \  1  \  1  \  23  \  23  \  4241	1≥48 1 12-1 1 2 2 4241
<sup>™</sup> ≥ 41 21 9 4 2 1 1 66-1 38 75 75 4241	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$
≦34 32 21 9 10 4 2 4 1 1 78-1 83 214 214 4241 S≥28 41 32 22 23 10 10 5 3 2 1 1 1 1 126-1 151 494 494 4241	≥34   14   5   7   5   3   1   36-1   35   86   87   4241   S ≥ 28   23   14   17   7   7   6   4   1   1   60-1   80   247   250   4241
E ≥ 22 47 40 26 31 22 9 18 6 9 6 5 4 5 2 2 2 44-1 234 1081 1093 4241	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$
E ≥ 17 47 32 22 39 29 22 21 18 B 5 5 6 5 4 10 19 204-1 292 1795 1842 4241	E ≥ 17 33 36 36 33 18 17 15 13 15 9 2 3 1 1 3 10 162-1 245 1312 1331 4244
D ≥ 11 30 17 20 22 12 20 20 18 9 10 12 8 6 7 12 63 348 - 1 286 2950 3059 4278	D ≥ 11 47 27 25 27 23 19 19 12 11 18 12 11 13 6 8 36 270-1 314 2523 2577 4254
$k \ge 7   19   5   9   12   7   5   10   9   9   5   7   5   10   1   4   90   600 - 1   207   3612   3774   4338$	$k \ge 7   15   14   9   20   11   15   10   9   5   11   12   3   8   10   4   78   504 - 1   234   3363   3497   4284  $
0 ≥ 4 12 4 3 4 3 7 4 4 1 1 1 5 3 1 82 780-1 134 3930 4162 4392 6 12 18 24 30 36 42 48 54 60 66 72 78 84 90 96+ MAX TE T T+ TH	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$
HOURS DURATION OF EVENTS	HOURS DURATION OF EVENTS
5 56.8N 141.9W w≥64 4241	6 50.9N 145.7W w ≥ 64 424:
¥ = 48 2 12-2 2 4 4 4241	¥ = 0.4 ≥ 48 1 1 1 12-1 2 3 3 4241
$\stackrel{N}{D} \ge 41$ 1 2 1 24-1 4 12 12 4241	$\stackrel{N}{D} \ge 41 \ 10 \ 5 \ 3 \ 1 \ 11 \ 36-1 \ 20 \ 39 \ 40 \ 424$
≥ 34 10 B 3 1 1 2 36-2 25 56 56 4241	≩34 15 20 18 4 3 3 1 1 1 54-1 65 175 182 4241
S ≥ 28   16   20   16   5   4   4   7   1   1   1   78 - 1   70   215   215   4241	S ≥ 28 47 36 22 11 13 14 5 3 3 2 2 66-2 158 506 517 424
E ≥ 22 26 27 17 14 17 15 9 7 2 4 1 1 1 108 - 1 140 571 576 4241 E ≥ 17 42 40 25 22 19 14 9 17 13 8 2 5 2 1 1 1 6 126 - 1 226 1105 1114 4241	$\underline{e}$ ≥ 22   51   29   32   30   24   19   25   10   8   3   7   5   5   2   3   120-1   253   1204   1226   424   1   E ≥ 17   41   72   37   26   24   19   20   16   17   14   9   9   5   2   5   25   276-1   286   2055   2095   424   19   20   16   17   14   9   9   5   2   5   25   276-1   286   2055   2095   424   19   20   20   20   20   20   20   20   2
	E ≥ 17   41   72   72   26   24   19   20   16   17   14   9   9   5   2   5   25   276 - 1   286   2055   2095   424   0   2   11   20   10   16   10   17   12   13   12   13   9   8   13   10   6   10   61   438 - 1   240   3094   3226   4258
k ≥ 7 36 17 25 19 15 10 15 6 13 18 15 10 6 8 6 61 312 - 1 280 3086 3230 4283	k ≥ 7   13   4   10   5   3   6   5   6   5   8   3   2   7   4   4   81   654 - 1   166   3603   3888   4316
n ≥ 4 14 11 7 5 6 3 11 4 5 3 7 6 4 4 2 87 636-1 179 3755 4002 4384	n ≥ 4 5 3 1 4 2 1 2 1 3 2 2 56 1710-1 82 3917 4317 44€3;
6 12 18 24 30 36 42 48 54 60 66 72 78 84 90 96+ MAX TE T T* TH HOURS DURATION OF EVENTS	6 12 18 24 30 36 42 48 54 60 66 72 78 84 90 96+ MAX TE T TH TH HOURS DURATION OF EVENTS
7 51.7N 135.7W	
w≥64 4241	w≥64 4241
≥48 2 1 12-1 3 4 4 4241 ≥41 5 6 2 18-2 13 23 24 4241	1 ≥ 48 2   6-2   2   2   424   N ≥ 41   4   2   12-2   6   8   8   424   12-2   6   12-2   6   12-2
D ≥ 34 14 18 5 6 2 30 -2 45 99 102 4241	D=71 7 2 3 2 2 24-2 14 28 29 424:
\$\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{17}{14}\frac{1}{9}\frac{4}{4}\frac{1}{2}\frac{1}{1}\frac{1}{1}\frac{1}{1}\frac{78-1}{1}\frac{105}{105}\frac{318}{318}\frac{321}{321}\frac{4241}{4241}\frac{1}{1}\frac{1}\frac{1}{1}\frac{1}{1}\frac{1}{1}\frac{1}{1}\frac{1}{1}\frac{1}{1}\frac{1}{1}\frac{1}{1}\frac{1}{1}\frac{1}{1}\frac{1}{1}\frac{1}{1}\frac{1}{1}\frac{1}{1}\frac{1}{1}\frac{1}{1}\frac{1}\frac{1}{1}\frac{1}{1}\frac{1}{1}\frac{1}{1}\frac{1}{1}\frac{1}\frac{1}{1}\frac{1}\frac{1}{1}\frac{1}\frac{1}\frac{1}\frac{1}\frac{1}{1}\frac{1}\frac{1}\frac{1}{1}\frac{1}\frac{1}\frac{1}\fr	S ≥ 28 18 12 5 7 4 2 1 42 1 42 1 42 1 42 1 42 1 42 1 4
E ≥ 22 48 61 33 28 17 9 8 / 7 3 2 ; 3 114-1 22 818 822 4241	E ≥ 22 49 30 16 10 14 6 5 3 2 2 1 84-1 138 418 432 424:
E ≥ 17 61 46 39 20 28 24 16 13 10 15 9 3 7 4 1 11 144-1 307 1593 1605 4241	E ≥ 17 68 48 41 24 16 16 8 12 7 7 2 1 1 2 1 4 186-1 258 1014 1039 4242
D ≥ 11 44 20 28 17 26 13 17 18 12 16 8 9 13 6 10 50 324 - 1 307 2805 2880 4242 k ≤ 7 18 13 5 12 7 8 11 9 11 9 19 9 5 3 5 80 666 - 1 214 3534 3688 4285	0 ≥ 11 58 36 29 16 25 26 24 17 15 9 10 9 5 14 4 36 366-1 333 2452 2517 4271
k ≤ 7   18   13   5   12   7   8   11   9   11   9   9   9   5   3   5   80   666 - 1   214   3534   3688   4285   1 ≥ 4   8   7   3   5   1   1   5   3   4   1   3   1   5   1   3   75   1302 - 1   126   3943   4208   4440	$k \ge 7$ 44 23 13 12 6 10 10 2 11 10 9 11 4 4 8 77 528 1 254 3377 3515 4326 $n \ge 4$ 13 13 4 3 5 1 5 3 4 4 3 3 3 3 1 75 744 1 140 3851 4249 4518
6 12 18 24 30 36 42 48 54 60 66 72 78 84 90 96+ MAX TE T TE TH	6 12 18 24 30 36 42 48 54 60 66 72 78 84 90 96+ MAX TE T Ta TH
HOURS DURATION OF EVENTS 9 46.3N 156.0W	HOURS DURATION OF EVENTS 10 45.6N 144.2W
w ≥ 64 4241	w≥64 4241
≥ 48 5 1 12-1 6 7 9 4241	1 ≥ 48 1
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	N 241 3 5 3 18-3 11 22 22 4241
≥ 34 45 24 16 15 5 3 1 54-1 109 259 264 4241 S≥ 28 56 34 24 33 17 8 7 4 4 1 2 1 78-1 191 630 644 4243	≥ 34 20 13 10 3 3 2 2 42 42 1 13 5 5 6 1 2 42 2 132 439 446 4241
F ≥ 22 73 41 33 38 24 15 16 14 11 1 6 4 2 3 5 8 144 - ; 294 1358 1376 4244	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$
E ≥ 17 61 38 29 33 24 21 21 17 19 12 9 8 6 5 3 30 228-1 336 2205 2278 4256	E ≥ 17 26 17 27 20 24 15 21 15 14 6 3 8 9 6 5 26 234-1 242 1866 1919 4241
D ≥ 11 21 20 15 12 13 22 14 6 9 7 7 11 5 5 10 66 744-1 243 3204 3361 4302	D ≥ 11 23 17 19 14 16 15 7 13 5 9 9 5 6 7 9 67 552-1 241 3015 3134 4259
k ≥ 7 8 6 7 7 5 1 6 7 4 1 1 5 3 6 4 75 792-1 146 3502 3939 4312	$k \ge 7 \   13 \   6 \   5 \   2 \   6 \   6 \   4 \   11 \   9 \   5 \   4 \   3 \   3 \   6 \   2 \   79 \   1122 - 1 \   164 \   3522 \   3796 \   4303 \  $
n ≥ 4 3 1 3 3 2 2 1 2 1 2 2 2 59 918~1 80 3459 42~3 4402 6 12 18 24 30 36 42 48 54 60 66 72 78 84 90 98+ MAX TE T Te TH	n ≥ 4 11 2 2 2 1 1 1 1 1 6 5 3 1 2 65 128-1 103 3680 4231 4412 6 12 18 24 30 36 42 48 54 60 66 72 78 84 90 96+ MAX TE T TH
HOURS DURATION OF EVENTS	HOURS DURATION OF EVENTS
11 46.3N 135.2W w≥64 4241	12 46.3N 126.4W w≥64 4241
≥48 2 6-2 2 2 2 4241	1 ≥ 48 4241
N ≥ 41 4 2 12-2 6 8 9 4241	$\stackrel{N}{D} \ge 41 \stackrel{3}{3} \stackrel{1}{1}$
≥ 34 22 13 4 3 24-3 42 72 75 4241	≥34 4 4 1 1   24-1 10 19 21 424!
5 ≥ 28   33   16   22   11   9   3   4   2   1	S ≥ 28 19 5 11 1 , 2 , 42-2 38 80 84 42411
E ≥ 22 43 37 32 22 12 13 9 8 3 3 3 3 5 3 162-1 193 782 801 4241 E ≥ 17 60 36 31 33 22 15 7 14 11 9 3 7 7 3 17 240-1 275 1534 1567 4241	E ≥ 22 51 25 12 10 8 9 2 2 1 1 1 1 66-i 122 331 341 4241 E ≥ 17 83 46 39 14 14 19 8 3 4 2 2 2 4 2 2 2 144-1 246 865 894 4253
D ≥ 11 35 21 21 15 23 20 10 19 8 14 9 7 6 7 5 58 336-1 278 2797 2908 4248	E ≥ 17 83 46 39 14 14 19 8 3 4 2 2 2 2 4 2 2 2 144-1 246 865 894 4253 D≥ 11 81 59 34 19 24 23 17 15 14 11 12 4 5 5 7 31 180-2 361 2166 2231 4277
k ≥ 7 28 7 16 2 6 13 9 5 6 6 7 8 6 6 7 74 588-1 206 3479 3718 4290	k ≥ 7 61 24 19 13 10 14 18 11 12 14 8 9 5 4 5 74 444-1 301 3244 3381 4352
n ≥ 4 7 4 2 2 4 6 3 4 2 1 1 4 2 3 4 68 804-1 117 3887 4441 4631	n ≥ 4 30 15 11 3 3 10 3 2 8 7 2 3 4 4 4 83 684-1 192 3833 4102 4468
6 12 18 24 30 36 42 48 54 60 66 72 78 84 90 96+ MAX TE T TW TH HOURS DURATION OF EVENTS	5 12 18 24 30 36 42 48 54 60 66 72 78 84 90 96+ MAX TE T TO TH HOURS DURATION OF EVENTS
Spring	23 Persistence of wind speed-duration
/W/ 161M	AV I VIGIGIEIIUG VI WIIIU DUBGU'UU[ALIU]

Spring

23 Persistence of wind speed-duration

) S8.5N 151.6W	2 59.2N 145.7W
w≥64 6 SEA-6 6 2208 4265 4265	W≥64 6 SEA-6 6 2208 4265 4265
≥48	1 ≥ 48 6 SEA-6 6 2208 4265 4265
N ≥ 41 13 SEA-6 13 2727 4586 4606	N≥41 8 SEA-7 8 2701 4369 4372
≥ 34 2 2 1 2 2 5335	≥34 1 1 1 1 16 SEA-7 19 3195 4783 4816
S≥28 5 3 2 1 1 1 1 1 2 1 2 46 SEA-4 66 4315 5261 5451	S≥28 3 1 1 2 2 1 1 1 2 1 1 30 SEA-6 46 3390 5006 5115
E ≥ 22 10 7 4 2 5 7 8 8 6 3 2 3 4 5 5 65 2040 - 1 144 4408 4695 5187	$E \ge 22 9 4 2 2 3 4 4 3 3 4 4 3 4 2 2 61 SEA-1 110 4249 4957 5313  E \ge 17 17 11 11 9 11 10 13 8 2 5 2 10 4 7 8 55 1968 = 1 183 3813 4190 4997 1$
E ≥ 17 16 23 19 17 9 18 10 12 4 3 9 6 4 6 7 63 1218 - 1 226 3662 3777 4822	
$\frac{1}{1}$ $\frac{1}$	
$k \ge 7$ 90 56 42 35 19 22 11 7 10 1 4 3 2 2 5 210-1 309 1208 1213 4299 $9 \ge 4$ 10251 29 15 11 4 3 2 1 2 2 150-1 222 547 548 4265	$k \ge 7 \cdot 10172 \cdot  50 33 \cdot  23 \cdot  81 \cdot  310 \cdot  7 \cdot  5 \cdot  4 \cdot  5 \cdot  4 \cdot  2 \cdot  9 \cdot  92 -  1 \cdot  356 \cdot  1417 \cdot  143 \cdot  42 \cdot  66 -  125 \cdot  582 \cdot  584 \cdot  424 \cdot  143 \cdot  42 \cdot  42 \cdot  43 \cdot  $
6 12 18 24 30 36 42 48 54 60 66 72 78 84 90 96+ MAX TI T TO TH	6 12 18 24 30 36 42 48 54 60 66 72 78 84 90 96+ MAX TI TA TH
HOURS INTERVAL BETWEEN EVENTS 3 54.4N 158.1W	HOURS INTERVAL BETWEEN EVENTS 4 56.2N 147 5W
w≥64 6 SEA-6 6 2208 4265 4265	w≥64   6   SEA-6 6   2208   4265   4265
N ≥ 48 1 15 SEA-7 16 3453 4794 4817	7 SEA-6 7 2332 42€3 42€5
N ≥ 41 3 2 1 1 2 1 1 29 SEA-5 40 3902 5065 5140	N ≥ 41 17 SEA-7 17 3386 4838 486
≥34 6 2 3 1 2 2 1 2 3 2 1 2 1 2 2 52 SEA-3 84 4673 5526 5740	≥34 1 1 1 1 1 1 1 1 1 1 1 1 1 31 SEA-7 40 409 5348 6435
$5 \ge 28 \ 10 \ 12 \ 9 \ 4 \ 9 \ 3 \ 3 \ 4 \ 3 \ 6 \ 5 \ 4 \ 6 \ 6 \ 68 \ 1800 - 1 \ 152 \ 4430 \ 4715 \ 5209$	S ≥ 28 5 5 4 2 3 1 2 4 3 2 2 1 2 50 SEA-3 86 43 6 50 6 6.66
$\epsilon \ge 22$ 21 22 24 15 19 12 6 9 9 11 10 9 3 5 3 59 864-7 237 3533 3663 4756	E ≥22 9 11 9 14 8 13 11 5 8 3 3 1 6 9 1 62 1980 - 1779 422 45 3 4
£ ≥ 17 46 47 33 26 19 12 13 10 14 10 6 5 4 8 5 39 744-1 297 2702 2741 4583	E ≥ 17 29 17 20 23 15 17 9 4 8 7 11 13 9 4 3 62 732 - 1 251 31 2 3190 45 4
U ≥ 11 77 48 40 28 24 11 14 5 6 6 2 5 3 4 1 9 318 - 1 283 1235 1262 4284	D≥11 63 55 37 36 23 10 23 B 10 3 11 6 9 2 18 300-2 314 1764 1775 4 · · ·
k ≥ 7 8 i 38 37 14 12 2 4 3 1 1 2 1 1 1 2 90-2 200 558 564 4241	$k \ge 7 \begin{array}{ c c c c c c c c c c c c c c c c c c c$
$^{n} \ge 4$ $\frac{78 28 11 3 4 1}{6 12 18 24 30 36 42 48 54 60 66 72 78 74 90 96+ MAX TI T TW TH$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$
HOURS INTERVAL BETWEEN EVENTS	HOURS INTERVAL BETWEEN EVENTS
5 56.8N 141.9W w≥64 6 SEA-6 6 2208 4265 4265	6 50 9N 145 W ₩≥64 6 SEA-6 6 2206 4705 471
W≥64 6 SEA-6 6 2208 4265 4265 E≥48 8 SEA-7 8 2702 4369 4373	W ± 64
N > 41 10 SFA - 7 10 2807 4468 4480	N 241 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
0 ≥ 34 2 2 1 1 1 23 SEA-7 29 3645 5210 5266	≥34 5 1 6 1 3 3 1 2 1 2 2 43 SEA-6 °C 452° 5 66 ±345
$S \ge 28 \ 4 \   1 \                                $	S≥28 11 12 8 6 9 5 8 6 9 5 4 4 3 2 4 67 SEA-1 163 4-42 499 ±5 4
E ≥ 22 10 9 5 5 7 4 11 5 5 5 6 4 2 1 6 61 1776-1 146 4233 4712 5289	E ≥ 22 40 21 22 13 19 13 12 17 6 14 4 8 5 2 2 63 1356 - 1 26 1 347 35 479
E ≥ 17 25 14 '9 16 17 11 16 B 15 5 4 3 9 B 1 60 1086 - 1 231 3278 3411 4525	E ≥ 17 46 38 35 30 15 22 14 9 8 11 9 5 6 6 3 37 480 - 1 294 2275 2298 439.
$0 \ge 11 \cdot 53 \cdot 39 \cdot 38 \cdot 28 \cdot 20 \cdot 18 \cdot 17 \cdot 15 \cdot 8 \cdot 6 \cdot 7 \cdot 11 \cdot 7 \cdot 2 \cdot 3 \cdot 31 \cdot 330 - 1 \cdot 303 \cdot 2154 \cdot 2171 \cdot 4339$	D ≥ 11 50 52 36 24 27 10 6 6 5 7 3 3 2 2 1 8 174-1 242 1059 10€ 4.7
$k \ge 7 73 59 38 24 23 19 8 11 9 5 2 1 2 1 4 144-1 279 1070 1078 4266$	k ≥ 7 61 38 29 15 8 6 2 2 2 1 114-1 164 435 438 424
$0 \ge 4 \frac{87}{44} \frac{44}{21} \frac{13}{13} \frac{4}{3} \frac{3}{2} \frac{2}{2} \frac{1}{2} \frac{1}{13} \frac{1}{13} \frac{114-1}{178} \frac{178}{39i} \frac{394}{394} \frac{4253}{4253}$	n ≥ 4 40 27 4 4 1 1 1 1 1 1 1 48 -1 79 148 49 4744 6 12 18 24 30 36 42 48 54 60 66 72 78 64 90 96 4 MAX 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7
HOURS INTERVAL BETWEEN EMENTS	HOURS INTERVAL BETWEEN EVENTS
7 51.7N 135.7W w≥64 6,SEA-6 6 2208 4265 4265	8 49.CN 128.4W W≥64 6 SEA-6 6 2208 4265 4245
w≥64 6 SEA-6 6 2208 4265 4265 1≥48 8 SEA-6 8 2321 4421 4425	₩=04 ≥48   8 SEA-6 8 2447 4292 4294
N 24 1 17 SFA-6 18 3192 4807 4831	N ≥41 1 1 10 SEA-6 12 2505 4336 4346
2 34 SEA-4 49 3785 5459 5561	≥34 1 1 1 1 1 1 16 SEA-7 20 3371 4791 4820
$S \ge 28 + 1 + 7 + 5 + 3 + 2 + 2 + 4 + 4 + 4 + 4 + 4 + 4 + 4 + 4$	S≥28 2 5 1 1 2 1 1 2 1 1 2 35 SEA-5 50 3706 5527 5654
$E \ge 22 \ 29 \ 23 \ 11 \ 16 \ 10 \ 5 \ 12 \ 8 \ 11 \ 5 \ 13 \ 5 \ 10 \ 5 \ 3 \ 62 \ 1476 - 1 \ 228 \ 3981 \ 4228 \ 5050$	$E \ge 22 \   17 \   5 \   5 \   8 \   4 \   7 \   4 \   4 \   2 \   5 \   2 \   6 \   4 \   4 \   59 \   SEA - 2 \   140 \   4447 \   4977 \   5439 \  $
E ≥ 17 54 34 25 27 15 20 8 15 10 16 11 12 6 4 1 50 798 -1 308 2854 2946 4551	E ≥ 17 30 29 18 13 18 10 16 9 9 6 8 7 10 3 4 69 1728 - 1 259 352 3683 473 D ≥ 11 84 50 43 28 23 10 16 14 5 10 5 4 7 5 2 24 198 - 1 330 1777 180 428
D ≥ 11 79 47 54 24 21 10 13 14 13 2 2 3 5 3 2 14 174 - 1 306 1412 1439 4318 k ≥ 7 86 44 35 10 13 5 4 2 1 3 4 2 1 2 102 - 1 212 614 617 4261	$^{\text{U}} \ge 11 \ 84 \ 50 \ 43 \ 28 \ 23 \ 10 \ 16 \ 14 \ 5 \ 10 \ 5 \ 4 \ 7 \ 5 \ 2 \ 24 \ 198 - 1 \ 330 \ 1777 \ 1861 \ 4248$ $_{\text{K}} \ge 7 \ 83 \ 57 \ 37 \ 16 \ 17 \ 12 \ 11 \ 6 \ 2 \ 2 \ 2 \ 2 \ 1 \ 1 \ 3 \ 108 - 1 \ 252 \ 816 \ 817 \ 424$
$k \ge 7 \begin{vmatrix} 86 \begin{vmatrix} 44 \begin{vmatrix} 35 \end{vmatrix} \begin{vmatrix} 10 \begin{vmatrix} 13 \end{vmatrix} \begin{vmatrix} 5 \begin{vmatrix} 4 \end{vmatrix} \begin{vmatrix} 2 \end{vmatrix} \begin{vmatrix} 1 \end{vmatrix} \begin{vmatrix} 3 \begin{vmatrix} 4 \end{vmatrix} \begin{vmatrix} 2 \end{vmatrix} \begin{vmatrix} 1 \end{vmatrix} \begin{vmatrix} 2 \end{vmatrix} \begin{vmatrix} 102 - 1 \end{vmatrix} \begin{vmatrix} 212 \begin{vmatrix} 614 \end{vmatrix} \begin{vmatrix} 617 \begin{vmatrix} 426 \end{vmatrix} \begin{vmatrix} 617 \begin{vmatrix} 617 \end{vmatrix} \begin{vmatrix} 617 \begin{vmatrix} 617 \end{vmatrix} \begin{vmatrix} 617 \begin{vmatrix} 617 \end{vmatrix} \begin{vmatrix} 617 \begin{vmatrix} 617 \end{vmatrix} \begin{vmatrix} 617 \begin{vmatrix} 617 \end{vmatrix} \begin{vmatrix} 617 \begin{vmatrix} 617 \end{vmatrix} \begin{vmatrix} 617 \begin{vmatrix} 617 \end{vmatrix} \begin{vmatrix} 617 \begin{vmatrix} 617 \end{vmatrix} \begin{vmatrix} 617 \begin{vmatrix} 617 \end{vmatrix} \begin{vmatrix} 617 \begin{vmatrix} 617 \end{vmatrix} \begin{vmatrix} 617 \begin{vmatrix} 617 \end{vmatrix} \begin{vmatrix} 617 \begin{vmatrix} 617 \end{vmatrix} \begin{vmatrix} 617 \begin{vmatrix} 617 \end{vmatrix} \begin{vmatrix} 617 \begin{vmatrix} 617 \end{vmatrix} \begin{vmatrix} 617 \begin{vmatrix} 617 \end{vmatrix} \begin{vmatrix} 617 \begin{vmatrix} 617 \end{vmatrix} \begin{vmatrix} 617 \end{vmatrix} \begin{vmatrix} 617 \begin{vmatrix} 617 \end{vmatrix} \begin{vmatrix} 617 \end{vmatrix} \begin{vmatrix} 617 \end{vmatrix} \begin{vmatrix} 617 \begin{vmatrix} 617 \end{vmatrix}   617 \end{vmatrix}   6$	n ≥ 4 63 40 18 7 4 4 4 36 36-4 136 269 270 4242
6 12 18 24 30 36 42 48 54 60 66 72 78 84 90 96+ MAX TI T THE TH	6 12 18 24 30 36 42 48 54 60 66 72 78 84 90 96+ MAX T; T T+ Th
HOURS INTERVAL BETWEEN EVENTS 9 46.3N 156.0W	HOURS INTERVAL BETWEEN EVENTS  10 45.6N 144.2W
w≥64 6 SEA-6 6 2208 4265 4265	w≥64 6 SEA-6 6 2208 4265 4265
≥48 1 1 1 1 11 SEA-7 :3 3141 4865 4874	1 6 SEA-6 7 2220 4264 4265
N ≥ 41 4 1 1 1 1 2 28 SEA-6 38 3979 5168 5227	D 241 1 1 1 12 SEA-5 35 2631 4941 4963
≥ 34 12 3 5 6 3 2 5 4 4 2 3 1 1 2 56 SEA-3 109 4478 5402 5666	≥34 6 2 1 3 2 2 1 1 37 SEA~€ 55 4418 5522 5652 S≥28 11 7 6 7 5 6 5 3 7 14 2 5 3 3 3 3 55 SEA~2 132 4036 5152 5598
$\stackrel{S}{=} 28   20   13   12   10   8   10   8   11   9   8   4   3   2   3   2   70   1902 - 1   193   4608   4774   5416   9   22   5   126   24   19   25   20   17   12   13   7   5   4   3   9   4   54   930 - 1   293   3181   3245   4618  $	P
	$\frac{1}{6} \ge 22$ 24 26 13 18 10 11 9 10 8 7 5 5 7 5 3 68 1548 - 1 229 3738 4037 5 32, $E \ge 17$ 33 19 21 18 17 22 11 18 7 7 6 4 5 1 4 52 774 - 1 245 2671 2715 4634
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	D ≥ 11 55 36 32 26 17 23 11 9 2 3 5 3 8 2 9 390 -1 241 1185 1198 4314
k ≥ 7 55 38 22 11 6 2 4 2 1 1 1 1 1 1 1 13-1 145 387 389 4257	$k \ge 7.51.37.30.14.10.6.8.2.1.1.1.1.3.102-1.164.512.516.4250$
$n \ge 4 \ 47 \ 15 \ 8 \ 2 \ 4$	n ≥ 4 57 25 7 3 4 2 1 48-1 99 180 183 4243
6 12 18 24 30 36 42 48 54 60 66 72 78 d4 90 96+ MAX TI T T+ TH	6 12 18 24 30 36 42 48 54 60 66 72 78 84 90 96+ MAX TI T To Th
HOURS INTERVAL BETWEEN EVENTS  11 46.3N 135.2W	HOURS INTERVAL BETWEEN EVENTS  12 46.3N 126.4W
w≥64	₩≥64 6 SEA-6 6 2208 4265 4265
≥48	≥48
N 241 1 1 10 SEA-6 12 2447 4428 4437	N≥41 1 9 SEA-6 10 2476 4308 4313 D≥34 1 1 1 13 SEA-B 17 3360 4530 4551
≥ 34 3 1 3 2 1 1 1 35 SEA-6 47 4104 5308 5383	= 57 / 5250 15 10
S ≥ 28 9 4 6 2 2 2 4 5 5 1 5 3 2 3 3 5 5 5 5 5 5 5 5 6 5 7 5 7 5 7 5 7 5 7 7 7 8 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	S ≥ 28     4     2     2     1     2     1     1     27     SEA-7     42     3981     5299     5383       E ≥ 22     18     8     7     2     4     4     2     2     4     2     3     3     1     5     1     59     SEA-3     125     4552     5136     5477
$\epsilon \ge 22$   28   14   13   12   5   12   6   9   5   6   9   3   5   1   3   63   2196 - 1   194   3845   4195   4996   $\epsilon \ge 17$   45   22   29   22   15   8   16   10   15   7   13   6   8   5   7   46   846 - 1   274   2857   2949   4516	E≥17 37 18 21 16 11 10 9 7 7 12 6 3 7 9 4 68 738-1 245 3459 3590 4472
D ≥ 11 64 48 24 33 26 14 17 8 10 4 6 4 5 2 1 10 258 - 1 276 1364 1403 4304	D ≥ 11 91 44 45 31 18 16 18 18 9 11 16 4 3 7 8 22 228-1 361 2044 2060 4255
x ≥ 7 72 44 24 24 16 6 5 4 2 2 1 1 1 90-1 201 576 583 4252	$k \ge 7 \cdot 10369 \cdot 41 \cdot 19 \cdot 19 \cdot 19 \cdot 19 \cdot 19 \cdot 19 \cdot 1$
$n \ge 4 62 30 13 3 1 1 78-1 110 191 196 4247$	n ≥ 4 96 46 22 15 5 3 1 1 48-1 188 365 366 4241
6 12 18 24 30 36 42 48 54 60 66 72 78 84 90 98+ MAX TI Y THE THE HOURS INTERVAL BETWEEN FVENTS	6 12 18 24 30 36 42 48 54 60 66 72 78 84 90 96+ MAX TI T TA TH HOURS INTERVAL BETWEEN EVENTS
23 Persistence of wind speed-interval	Spring

1 58.5N 151.6W	2
w≥64 4100	2 59.2N 145.7W w ≥ 64 4100
₹48 4100	≥48 4100
N 241 1 1 4100	N > 4 · · · · · · · · · · · · · · · · · ·
3 ≥ 34 3 , 2 2 1 18 - 2 7 13 13 4100	D ≥ 34 7 1 2 2 30 -2 12 28 28 4100
S ≥ 28 13 12 6 3 2 3 3 36-3 39 95 97 4100	S ≥ 28 7 11 3 4 1 3 36-3 29 77 78 4100
$F \triangleq 22 \ 25 \ 15 \ 20 \ 11 \ 7 \ 4 \ 2 \ 6 \ 4$	F \(\frac{22}{16}\) 13 9 6 6 3 2 5 1 1 1 72-1 62 216 221 410C
E ≥ 17 33 26 17 20 12 7 10 12 5 2 4 2 2 4 138 -1 156 715 734 4111	E ≥ 17 27 17 11 14 12 4   B 6 5   3 3 1 3 1 1 108 -1 114 520 548 4100
b ≥ 11 45 28 24 22 20 18 19 12 10 12 7 12 8 6 2 19 264 - 1 264 1754 1834 4133	D ≥ 11 42 33 25 23 18 17 14 9 9 14 3 5 8 2 3 14 270-1 239 145: 1503 41.7
<u>, ≥ 7 42 24 20 12 19 17 9 13 12 16 8 9 6 9 55 276 1 271 2684 2882 4181</u>	$k \ge 7$ 56 36 27 19 17 19 10 11 7 9 11 6 13 6 5 46 330-1 298 2513 2692 42 2
$7 \ge 4 \cdot 33 \cdot 22 \cdot 13 \cdot 9 \cdot 8 \cdot 15 \cdot 7 \cdot 7 \cdot 5 \cdot 3 \cdot 10 \cdot 6 \cdot 4 \cdot 7 \cdot 10 \cdot 79 \cdot 630 - 1 \cdot 238 \cdot 3367 \cdot 3654 \cdot 4344$	$0 \ge 4   47  39   15   10  5   11  6   7   6   3   8   6   5   7   2   77   882 - 1   254     3246     3625     4302  $
6 12 18 24 30 36 42 48 54 60 66 72 78 d4 90 96+ MAX TE T T# TH	6 12 18 24 30 36 42 48 54 60 66 72 78 H4 90 96+ MAX TE T TR TH
HOURS DURATION OF EVENTS 3 54.4N 158.1W	HOURS DURATION OF EVENTS 4 56.2N 147.5W
n ≥ 64 4100	w≥64 4100
" = 48 2 1 1 18-1 3 5 5 4102	₹48 1 1 3 3 41€3
, ≥41 7 3 3 1 1 30-1 5 31 31 4102	N ≥41 3 1 1 36-1 4 9 4°00
≥ 34 10 5 7 5 2 1 1 1 1 48-1 32 92 92 4104	≥34 4 1 1 2 1 1 1 48-1 10 30 30 41
2 ≥ 28 29 12 12 6 3 9 1 2 1 60-1 75 215 226 4107	S≥28 16 5 6 3 2 2 1 54-1 35 9: 94 4:5.
= ± 22 35 37 29 15 13 9 5 6 6 4 1 1 1 1 1 102+1 164 622 646 4115	F ≥ 22 31 19 13 13 7 5 1 B 3 1 2 66-2 103 355 371 4°C.
1 2 1 56 46 35 28 17 14 14 15 11 7 4 5 3 2 4 9 162-1 270 1331 1386 4125	E≥17 46 29 22 20 15 14 6 7 14 10 4 5 1 3 6 192-1 192 930 956 410
2 1 35 20 25 17 18 16 11 15 11 10 9 7 9 6 7 59 648 - 1 275 2730 2862 4227	D ≥ 11 23 26 22 13 15 16 12 12 17 10 11 B 11 10 6 33 318-1 245 2246 2340 4225
- ≥ 7 24 0 11 13 10 13 8 4 6 9 4 3 2 5 7 78 798 - 1 207 3518 3836 4424	N ≥ 7 24 14 12 6 14 11 8 8 4 8 10 8 9 8 7 67 612-1 218 3088 3405 433
2 4 12 2 5 3 2 5 1 6 5 3 3 1 1 65 1152-1 114 3613 4193 4424	^ ≥ 4 24 3 6 4 4 3 3 4 4 2 5 6 3 2 3 71,942~1 '47 346' 4066 44"4
5 :2 16 24 30 36 42 48 54 60 65 72 78 H4 90 96+ MAX TE T TH	6 12 18 24 30 36 42 48 54 60 66 72 78 84 90 96+ MAX TE T THE THE PROPERTY OF STREET
HOURS DURATION OF EVENTS 56.8N 141.9W	HOURS DURATION OF EVENTS 50.9N 145 7W
5 204 A100	w ≥64
₹48 4100	≥48 1 6-' 1 4':
24' 3 1 30-' 4 8 8 4100	N ≥ 41 7 2 12-2 9 1' 12-2 9
£ 34 6 3 2 1 2 1 42-1 :5 39 39 4100	≥ 34 12 9 3 2 1 30-1 27 52 57 4 °25
≥ 28 6 5 1 3 3 1 2 54-2 28 96 98 4100	S ≥ 28 24 15 8 9 3 1 5 2 1 72-1 68 199 253 4111
= 4 22   25   13   12   11   4   3   4   5   3	£ ≥22 50 17 27 15 16 10 10 4 5 1 2 5 2 1 114-1 165 65: 659 4138
= ≥ 7 42 22 14 20 17 7 6 8 3 4 3 14 3 1 1 3 198 - 1 158 707 741 4104	E ≥ 17   56   38   36   22   16   20   14   16   8   7   9   5   6   9   3   9   138 - 1   274   14   14   16   15   13   4   3
≥ 1 52 25 30 15 21 23 17 11 14 9 10 9 3 5 7 20 222-1 271 1852 1930 4190	2 ≥ 11 35 15 11 11 17 8 11 6 6 6 6 5 2 8 10 5 68 462-1 224 2844 2999 4274
2 7 30 18 23 12 13 11 10 8 12 9 11 10 11 1 6 62 546 - 1 253 2935 3146 4343	k ≥ 7 17 12 12 3 5 6 7 3 1 7 6 1 3 1 2 67 792 - 1 158 3:23 3 86 43*4
6 12 18 24 30 36 42 48 54 66 66 72 78 84 9 996 MAX TE T TO TH	0 ≥ 4 9 7 4 5 3 3 3 3 3 4 2 3 2 2 2 50 1686-1 100 3527 445 45 465 465 465 465 465 465 465 465
HOURS DURATION OF EVENTS	HOURS DURATION OF EVENTS
7 51.7N 135.7W 4100	8 49.0N 128.4W
248 6- 1 1 1 4100	w ≥64
24. 3	N≥41
≥34 11 4 3 2 24-2 26 36 37 4100	2 3 4 2 2 1 1 16 - 1 5 9 9 4 4 11
≥28 19 1 8 5 6 1	S ≥ 28 6 7 3 1 24-1 17 33 33 1 4·cs
= \(\frac{2}{2}\) \(\frac{1}{2}\) \(\frac{17}{12}\) \(\frac{1}{16}\) \(\frac{9}{1}\) \(\frac{1}{1}\) \(\frac{1}{1}\) \(\frac{1}{2}\) \(\frac{108}{108}\) \(\frac{1}{112}\) \(\frac{401}{401}\) \(\frac{414}{4101}\)	F = 22,19 9 6 6 2 5 1 1 1 1 60-1 50 144 44 4 101
50 26 23 18 10 18 7 6 4 7 5 3 3 4 1 7 126 1 192 929 963 4115	E ≥ 17 52 16 16 3 10 7 5 3 1 1 3 2 1 96 - 126 428 43 43 4 · · 5
2 1 53 23 21 21 18 16 15 20 13 14 9 4 12 3 2 35 270 1 279 2202 2266 4133	D ≥ 11 80 59 31 16 21 16 13 5 8 11 9 4 3 6 2 17 246 - 1 30 1 1562 1622 4127
. ≥ 7 31 18:11 9 13 8 10 6 7 9 3 5 5 7 3 81 636-1 226 3289 3454 4336	$k \ge 7.54   47.25   13.16   20.17   9.6   10.12   4.5   10.7   49.420   1.306   2804   3025   4.72$
^ ≥ 4   10   9   5   1   5   3   5   5   2   1   3   1   1   1   66   1272 - 1   118   3820   4408   4705	n ≥ 4 19 21 8 6 12 6 7 7 1 5 4 4 5 3 6 66 852-1 180 3398 3827 4248
6 12 18 24 30 36 42 48 54 60 66 72 78 H4 50 96+ MAX TE T TH TH	6 12 18 24 30 36 42 48 54 60 66 72 78 H4 90 96+ MAX TE T Te Te
HOURS DURATION OF EVENTS 9 46.3N 156.0W	HOURS DURATION OF EVENTS 10 45.6N 144.2W
,, ≥ 54 4100	w≥64 4100
≥48 1 6-1 1 1 4100	≥48
18 - 2 11 17 17 4100 18 - 2 11 17 17 4100 18 - 2 11 17 17 4100 18 - 2 11 17 17 4100 18 - 2 11 17 17 4100 18 - 2 11 17 17 4100 18 - 2 11 17 17 4100 18 - 2 11 17 17 4100 18 - 2 11 17 17 4100 18 - 2 11 17 17 4100 18 - 2 11 18 - 2 11 17 17 4100 18 - 2 11 18 - 2 11 18 - 2 11 17 17 4100 18 - 2 11 18	N ≥41 1 6-1 1 1 4'12
≥ 34 22 11 8 2 7 1 36-1 46 92 92 4100	≥34 7 7 1 1 1 1 1 12-7 14 21 21 4:21
S ≥ 28   43   19   16   13   10   9   2   1   78 - 1   113   314   329   4100	S ≥ 28 23 13 5 9 3 1 1 1 54-1 55 130 133 412
c ≥ 22 35 28 24 21 14 12 10 7 10 4 2 2 3 1 1 1 4 150-1 178 833 858 4100	E ≥ 22 34 22 16 12 13 7 8 2 2 2 1 2 1 2 1 108-1 125 485 501 4134
5 ± 17   45   31   23   18   19   14   14   7   6   11   9   5   4   2   16   258 - 1   238   1484   1544   4106	E ≥ 17 44 17 19 13 18 18 11 9 9 11 4 2 3 4 9 174-1, 191 1082 1116 4 · · ·
2 1: 41 21 19 16 9 16 10 9 7 6 6 6 7 4 7 6 63 504-1 247 2716 2850 4201             2 2 7 25 2 9 14 12 11 1 5 7 1 7 4 7 1 4 74 894-1 184 3321 3604 4242	D ≥ 11 47 16 14 11 15 10 13 5 5 6 7 9 8 10 3 51 354 - 230 2352 248 4 55
	k ≥ 7 29 7 7 4 8 7 4 6 8 5 5 1 3 3 7 74 786-1 178 3259 3458 421
^ ≥ 4 10 11 4 3 5 6 2 1 2 2 3 2 1 2 59 1908 -1 113 3806 4628 4857	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$
HOURS DURATION OF EVENTS	HOURS DURATION OF EVENTS
11 46.3N 135.2W	12 46.3h 126.4W
w≥64 4100 ≥48 4100	w≥64 4100 1≥48 4100
N = 40 C = 41 1 1 1 18-1 2 4 4 4100	N
E = 34 9 2 1	D ≥ 41 ≥ 34 4100
2 ≥ 28 20 11 6 1 1 30 −1 39 69 70 4100	S ≥ 28 3 1 18-1 4 6 6 4100
E 22 32 14 23 9 5 3 5 2 1 1 78 -1 95 281 283 4101	P ≥ 22 27 12 6 3 2 1
E ≥ 17 [42   27   21   12   14   8   10   2   2   3   4   3   2   2   1   4   138 - 1   166   717   735   4116	$E \ge 17/95/40/18/6/3/12/3/1/1/4/1/2/1/1/1/1/84-1/187/469/479/4144$
	E \$ 1 / 95 40   18 6 3   12 3 1 1 1 4 2   1   84 1 18 4 469 4 79 4 74 1
D ≥ 11 57 26 29 16 14 15 14 9 13 7 5 5 9 9 8 31 276-1 267 1991 2044 4134	D≥11 1083 36 11 23 12 16 5 7 5 8 4 2 5 6 22 324-1 355 1730 1790 4136
0 ≥ 11 57 26 29 16 14 15 14 9 13 7 5 5 9 9 8 31 276-1 267 1991 2044 4134 > ≥ 7 46 13 16 11 10 12 11 7 7 6 6 4 4 1 2 77 522-1 233 3048 3213 4205 0 ≥ 4 16 5 5 7 3 5 3 3 1 8 4 5 1 3 2 71 1290-1 142 360 4035 4416 6 2 18 24 30 35 42 48 34 60 60 572 78 84 9094 MAX TE THE	D≥ 11 1083 36 11 23 12 16 5 7 5 8 4 2 5 6 6 22 324-1 355 1730 1790 4136 k≥ 7 64/35 23 14 10 13 13 11 11 13 6 10 5 9 9 51 552-1 297 2835 3029 4149 D≥ 4 39 26 14 7 6 9 6 4 6 9 3 8 5 3 71 666-1 220 3446 3815 429 6 12 16 24 30 36 42 48 54 60 66 72 78 64 90 90 40 MAX 76 7 77 78
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$

Summer

23 Persistence of wind speed-duration

### 11-499

1 58.5N 151,6W	
	2 59.2N 145
6 SEA-6 6 2208 4224 4224	w ≥ 64 6 SEA-6 6 2208 4224 42
B 6 SEA-6 6 2208 4224 4224	€ SEA-6 6 2208 4224 42
6 SEA-6 6 2208 4444 4445	N ≥4' 6 SEA-5 6 2'95 426' 47
4 10 SEA-3 10 2464 4485 4498	≥34 1 1 14 SEA-3 6 28:2 4405 44
8 2 2 1 2 2 1 1 1 31 2118 - 1 42 3332 4255 4352	S ≥ 28 1 1 2 1 1 1 1 1 1 2 24 2112 - 35 3278 4305 43
2 4 7 3 1 4 2 2 4 5 1 4 2 1 6 52 1224 1 98 3347 3869 4198	E ≥ 22 5 3 4 3 3 1 4 14 1 1 1 38 692-1 68 3200 3998 42
7 22 6 10 3 17 10 7 5 4 2 4 7 1 3 3 65 1050 - 1 159 3133 3439 4162	E≥17 3 7 6 7 3 4 8 5 4 1 4 2 1 4 4 59 984-1 122 3121 3596 4:
1 54 24 28 20 21 10 8 12 9 15 9 8 9 3 8 35 360 - 1 273 2253 23 7 4 18	Dai: 33 30 16 15 19 13 14 8 7 8 2 0 6 8 7 5: 396 - 1 243 2557 2633 4:
7 65 44 42 22 22 15 15 9 4 7 5 3 1 1 5 12 156 2 272 1293 1304 4105	$\kappa \ge 7.7346313425121015145194311114204-129944851574440$
4 92 55 32 21 10 8 4 6 1 2 1 1 1 4 144-2 236 686 690 4100	= 150(4) 36(1) 3 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7
6 .2 16 24 36 16 42 46 54 60 66 72 78 84 90 96+ MAX TI T T* TH HOURS INTERVAL BETWEEN EVENTS	6 :2 '8 24 30 36 42 48 54 60 66 72 78 84 90 96 - WAX Y Y Y Y Y HOURS INTERVAL BETWEEN EVENTS
3 54.4N 158.1W	4 56 2N 147
6 SEA-6 6 2208 4224 4224	W≥64 6 SEA-6 6 2208 4224 40
7 SEA-5 7 2385 4255 4258	1 ≥ 48 6 SEA-5 6 2193 4265 420
1 2 14 SEA-3 16 2728 4230 4259	N ≥ 41
4 1 1 2 1 26 2100 - 1 33 3001 4190 4278	≥34 SEA-3 13 2256 4264 42
2 4 3 3 1 1 1 2 13 2 2 1 3 1 50 1506-1 79 3210 3969 4188	5 ≥ 28 .2 .2 .1 .1 .1 .2 .1 .1 .1 .1 .1 .1 .28 .210€ -1 .41 .3243 .4209 .43
2 24 9 6 4 5 6 5 7 7 6 5 5 4 4 3 66 720-1 166 3255 3506 4137	F ≥ 22 10 7 7 5 € 3 2 ,4 3 2 1 1 4 1 4 49 374-1 109 3.52 3 88 4 1
37 26 23 27 14.14 13 16 8 10 10 5 9 6 5 51 420-1 274 2599 2771 4132	E≥17 19 14 9 19 10 8 5 5 6 10 4 3 3 2 5 72 486 - 194 2988 3169 41
6 5 5 2 48 9 22 16 8 3 9 2 3 5 2 3 4 12 222-1 279 1340 1371 4106	D ≥ :1 35 28 27 20 15 12 15 15 12 6 9 9 9 5 8 1 28 300 -1 245 1 835 1865 4
59 29 1 3 4 2 1 1 1 90 - 1 111 227 231 4100	n ≥ 4 59 34 22 12 4 5 4 3 1 1 1 1 1 1 4-1 46 38 408 4
E 2 18 24 30 36 42 48 54 60 66 72 78 H4 90 96+ MAX T: T T+ TH HOURS INTERVAL BETWEEN EVENTS	6 17 18 24 30 36 47 48 54 60 66 72 78 84 90 96+ MAX T T T. T- HOURS INTERVAL BETWEEN FVENTS
5 56.8N 141.9W	6 50 9N 145
6 SEA 6 6 2208 4224 4224	w≥64 € 35A-c € 2206 4224 42
6 SEA-61 6 2208 4224 4224	(≥48 6 354-6 6 2205 4299 43
9 SEA-4, 9 2602 43:5 4323	N ≥41 11 11 11 11 11 15E4-3 13 2719 4464 44
1 2 15 SEA-2 19 2654 4227 4266	≥34 4 1 1 1 1 3 1 92.60 30 2775 4332 43
2 1 2 2 3 21 SEA-1 32 2748 4190 1 4288	\$ ≥ 26 5 4 2 2 3 3 2 1
6 5 4 5 4 2 3 2 4 1 1 4 4 46 650 - 1 89 3165 3890 4193	F € 22 19.6 11 11 7 2 7 5 6 8 5 4 4 5 3 62 640 - 165 3263 3450 4:
14 9 17 3 19 4 110 3 13 6 16 14 15 16 16 3 6 06 1 163 3216 3400 4137	E≥17 56,33 22:19 11 12 9 13 1:13 7 8 7 4 5 45 390 - 1 275 2533 2424 4:
37 41 33 17 24 10 6 16 7 7 12 4 6 6 6 4 42 324 - 1 272 2197 2268 4108	F
60 51 31 22 1 1 1 5 1 4 1 7 8 1 7 1 3 2 2 1 1 12 1 7 4 - 1 253 1 1169 1 1204 4 107	
53 42 22 9 9 14 3 2 2 4 1 2 2 2 08 -1 85 505 509 4101	T ≥ 4 48:21 14 7 4 4 1 1 1 1 1 1 1 1 128 - 12 14 24 4 4 1 1 1 1 1 1 1 1 1 1 1 1 1
HOURS NTERVAL BETWEEN EVENTS	HOURS INTERVAL BETWEEN EVENTS
7 51.7N 135.7W	8 49 ON '28
6 SEA-6 6 2208 4224 4224	W≥64 6 SEA-6 6 7208 4724 42
7 SEA-6 7 2500 4223 4224	6 SEA-6 6 2736 4274 42
9 SEA-5 9 2545 4278 4283	D≥41 6 3EA-6 6 2238 4224 47
1 1 1 1 17/SEA-1 25 2650 4317 4354	≥34 10 SFA-6 10 2751 4455 44
3 1 2 3 2 2 1 1 2 2 32 2064 - 1 54 3048 4229 4352	S≥28 3 1 1.1.15.3EA-1.21 2395 4303 43
3776 4189	€ ≥ 22 4 4 2 1 1 1 1 2 1 2 1 34 2 2 2 - 1 54 1 296 2 4 3 - 42
24 + 1 0 8 + 6 5 4 6 4 6 4 2 1 5 68 678 - 1 1 194 2965 3205 4 153	E ≥ 17 114 7 12 5 2 4 1 1 3 4 4 3 5 1 2 2 5 1692 - 126 332 3 1 4 4 4 3 5 4 6 1 2 2 5 1692 - 126 332 3 1 € 4
H: 34 7. 2' '4' '13 15 11 6 6 7 12 3 2 31 312-1 280 1796 1887 4114	D≥11  59  45  32   16   12   13   17   12   11   8   8   6   2   4   5   46   196 - 2   296     24   7   2614   4
K 9 46 1 26 3 3 1 1 8 7 4 2 4 3 3 1 1 1 5 1 44 - 1 228 967 884 1 4102	k ≥ 7 97 54 47 23 15 18 9 8 9 3 3 5 2 2 1 6 114 - 1 302 1124 1135 4
5-24-4	n≥ 4 86 45 13 8 8 7 1 14 3 1 1
* 2 to 4 31 36 47 48 54 60 66 22 78 84 90 96 - WAY TO THE TH	6 2 1e 24 30 36 42 48 54 60 66 72 7e #4 9596 MAX
HOURS INTERVAL BETWEEN EVENTS	HOURS INTERVAL BETWEEN EVENTS
9 46.3N 156.0W	10 45 6N 144
6 SEA-6 6 2208 4224 4224	W≥64 6 SEA-6 6 2238 4224 4.
6 SEA-5 6 2183 425 4258	6 SEA-6 6 2208 4224 42
11 SEA-3 13 3145 4798 4815	N≥41 7 SEA-6 2498 4223 42
5 2 3 1 2 32 SEA-1 46 3283 4397 4489	≥34 1 1 3 1 12/SEA-2 18 27.6 44.8 44
4 7 5 4 2 6 2 3 4 5 7 2 3 50 698 - 1 118 3395 3984 4313	5 ≥ 28 7 1 2 5 2 2 2 1 1 1 1 2 1 135 1788 - 1 62 3106 4234 43
22 1 10 5 4 13 8 7 2 7 2 4 1 3 4 68 666-1 182 3107 3333 4191	E ≥ 22 23 8 4 3 5 4 8 1 6 4 1 3 3 4 52 1386 - 1 129 3122 3 4 4
40 30 16 7 15 13 8 5 9 8 8 8 8 6 2 50 414-1 244 2499 2574 4112	E ≥ 17 35 15 14 13 12 6 12 8 3 2 4 3 1 8 6 55 768 - 1 197 2935 3076 4
18 33 37 22 15 13 16 8 10 8 2 4 6 1 3 13 312-1 249 1328 1355 4104	D≥11 48 33 15 24 15 13 13 12 12 15 6 2   2 5 28 366 - 1 233 1636 1686 4
* <del></del>	* 7 46 31 23 21 12 11 8 .5 .5 .3 .2 .3 .2 .2 .3 .2 .2
23 4 3 23 1 1 6 3 1 7 2 3 1 1 2 3 1 2 1 1 1 1 2 1 1 3 0 1 1 1 1 3 4 1 3 0 1	7 ≥ 4 52 26 12 4 10 15 3 1 1 1 1 1 72-1 115 781 784 4
	6 12 18 24 30 36 42 48 54 60 66 72 78 84 90 96+ WAX T T To The T
73 17, 7 5 4 5 2 1 1 54 1 15 229 229 4100 6 12 18 24 30 16 42 48 54 60 66 72 78 n4 90 964 MAX T: T To TH	
73, 77, 75, 44, 55, 22, 11 54, 11 54, 11 11 54, 11 11 54, 11 11 74, 11 11 75, 11 11 75, 11 11 75, 11 11 75, 11 11 75, 11 11 75, 11 11 11 11 11 11 11 11 11 11 11 11 11	HOURS INTERVAL BETWEEN EVENTS
73, 77 5 4 5 2 1 1 5 6 72 78 4 90 66 72 78 44 90 96 97 8 48 97 8 78 97 97 97 97 97 97 97 97 97 97 97 97 97	12 46.3N 126
73 77 7 5 4 5 2 1 1 5 6 54 1 115 229 229 4100 6 12 16 12 10 16 42 46 54 60 66 72 78 64 90 96 8 MAX T: T T TH HOURS INTERVAL BETWEEN EVENTS	12 46.3N 126 W≥64 6.5EA-€ 6.2208 4274 4.
73:77 7 5 4 5 2 1 1 5 4 5 2 1 1 5 229 229 4100	12   46.3N   126   8   12   12   13   126   8   14   15   14   15   15   15   15   15
73.77 7 5 4 5 2 1 1 5 7 8 4 90 66 72 78 44 90 90 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	W≥64     12     45.3m. 126       1 ≥ 4B     6 5EA-6 6 2208 4224 42       1 ≥ 4B     6 5EA-6 6 2708 4224 42       N ≥ 41     6 5EA-6 6 2708 4224 42
73 77 7 5 4 5 2 1 1 5 6 6 7 1 6 6 7 1 6 6 7 1 6 7 1 6 7 1 6 7 1 7 1	12
73.77 7 5 4 5 2 1 1 5 7 6 4 5 0 6 72 76 64 90 90 90 90 90 90 90 90 90 90 90 90 90	12   46.3N   126   1208   42.24   4.24
73 17 7 5 4 5 2 1 1	12
73 :77 7 5 4 5 2 : 1	12
73 17 7 5 4 5 2 1 1	12 46.3M 126    ≥48
73 :7 7 5 4 5 2 1 1	12 46.3M 126    ≥64
73 17 7 5 4 5 2 1 1	12
73 17 7 5 4 5 2 1 1	2

23 Persistence of wind speed-interval

Summe

1	58.5N 151.6W	2	59.2N 145.7W
w ≥ 64 1 12-1 1	2 2 4545	w≥64	4545
1 ≥ 48 6 2 1 1 18-1 9 N ≥ 41 18 10 2 1 3 1 1 48-1 35	13 13 4545 71 71 4546		15 15 4545 98 98 4545
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	263 263 4548		325 326 4545
S ≥ 28 52 41 37 22 17 9 6 5 5 2 2 1 1 1 102-1 200	677 686 4550		711 713 4550
E ≥ 22 62 50 56 45 23 20 17 8 10 8 8 1 1 3 1 8 168-1 321	1434 1465 4568	E ≥ 22 68 45 39 31 26 20 14 11 B 4 4 3 3 1 12 198-1 289 1	337 1372 4559
E ≥ 17 62 49 43 41 38 26 13 24 16 13 11 6 7 3 5 21 240-1 378	2255 2325 4584		2159 4570
D ≥ 11 40 31 35 23 22 29 19 18 12 10 15 10 7 8 2 64 456-1 345	3301 3472 4637		1162 3244 4603
$k \ge 7$   77   16   14   14   14   10   16   10   4   7   5   10   12   1   6   92   618-1   248   $n \ge 4$   6   4   7   3   5   6   2   4   2   2   1   4   3   3   85   762-1   137	3870 4200 4739 3925 4599 4811		3768 4033 4678 1129 4681 4903
6 12 18 24 30 36 42 48 54 60 66 72 78 84 90 96+ MAX TE	T TO TH	6 12 18 24 30 36 42 48 54 60 66 72 78 84 90 96+ MAX TE	T Te TH
HOURS DURATION OF EVENTS 3	54.4N 158.1W	HOURS DURATION OF EVENTS	56.2N 147.5W
w ≥64 1 1 12-1 2	3 3 4545	w≥64	4545
≥48 13 5 3 2 3 3 30-3 26	55 55 4545	N	16 16 4545
D ≥ 41 38 25 5 6 3 2 2 42-2 81	168 168 4545		87 87 4545
≥ 34 55 35 34 20 10 6 3 1 3 2 60-2 169 5 ≥ 28 75 51 55 28 25 19 8 10 3 7 3 1 2 96-2 287	469 477 4545 1004 1028 4545		341 341 4548 770 773 4552
E = 22 81 60 52 37 37 32 20 12 15 11 8 2 8 2 14 162-1 391	1890 1937 4569	P	1507 1521 4568
E ≥ 17 57 48 46 35 28 25 36 18 21 10 5 14 12 4 5 37 240-1 401	2757 2840 4598		2331 2401 4570
D ≥ 11 29 18 25 26 23 16 16 18 7 7 9 9 13 4 4 81 528 -1 305	3756 3943 4716		3262 3549 4589
x ≥ 7   13   9   11   9   6   6   6   10   5   6   4   7   5   10   1   84   942-1   192	3959 4461 4810	*	3791 4273 4706
0 ≥ 4 3 4 2 4 3 3 1 2 2 4 1 1 1 66 1008 - 1 97 6 12 18 24 30 36 42 48 54 60 66 72 78 84 90 96 MAX TC	3677 4812 4936 T Te Th	$n \ge 4$ $7$ $4$ $6$ $3$ $5$ $3$ $1$ $3$ $2$ $2$ $4$ $1$ $2$ $1$ $2$ $70 1026-1 116 3 6 12 18 24 30 36 42 48 54 60 66 72 78 44 90 96 44 44$	3650 4713 4876
HOURS DURATION OF EVENTS	56.8N 141.9W	HOURS DURATION OF EVENTS	50.9N 145.7W
N ≥ 64	4545	w≥64 1 1 1 12-1 2	3 3 4545
≥48 9 4 4 17	29 29 4545	1 ≥ 48 18 11 5 3 24 - 3 37	67 67 4545
3 ±4: 22 18 8 8 1 1 48-1 58	127 127 4545	U	229 229 4545
≥ 34 37 35 17 14 9 8 3 1 1 2 60-2 127 1	365 365 4546 770 774 4547	≥34 69 52 31 22 17 7 7 3 2 4 1 90 - 1 715 6	627 627 4545
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	770 774 4547 1525 1540 4557	P	1321   1326   455 <sup>1</sup> 1290   2333   4572 <sup>1</sup>
E ≥ 17 48 50 36 26 34 22 14 25 15 11 6 6 4 10 3 33 234 - 1 343	2308 2348 4572	<del> </del>	3077 3207 4593
<sup>2</sup> ≥ 11 30 31 32 25 18 20 21 16 15 15 5 11 11 6 2 63 450 - 1 331	3281 3419 4598		3476 4004 4602
k ≥ 7 [8   13   16   12   11   4   5   3   11   13   9   8   5   6   5   89   546-1   228	3772 4134 4654	\{	3752 4515 4759
6 12 18 24 30 36 42 48 54 60 66 72 78 44 90 96 MAX TE	4053 4744 4932	n ≥ 4 1 3 1 2 2 1 1 1 1 47 2088 - 1 60 3 6 12 18 24 30 36 42 48 54 60 66 72 78 84 90 96+ MAX TE	3703 5094 5167
HOURS DURATION OF EVENTS		HOURS DURATION OF EVENTS	
,,≥64 1 6-1 1	51.7N 135.7W	w≥64 1 6-1 1	1 1 4545
<u>≥48 21 9 6 2</u> 24-2 38	65 65 4545		34 34 4545
3 ≥ 4 : 48 28 : 8 6 4 1 1 54-1 105	211 211 4545	N ≥ 41 27 20 8 5 1 2 1 54-1 64	139 139 4545
≥ 34 55 44 50 29 i 7 4 3 1 1 72-1 203	551 552 4546		387 387 4545
$\stackrel{>}{\sim}$ 28 68 65 47 44 30 30 12 7 4 1 2 1 1 1 1 1 96-1 314 $\stackrel{>}{\sim}$ 22 65 50 42 45 42 27 27 25 15 9 5 6 7 4 2 15 138-2 386	1108 1115 4550 2047 2067 4567	P	735 751 4553 375 1401 : 4555
E = 17 40 38 36 20 35 25 24 21 17 8 9 10 7 8 5 48 252-1 351	2918 2972 4608	·	168 2239 4564
2 ≥ 11 22 24 22 11 12 11 15 12 12 7 8 6 11 7 3 82 588 - 1 265	3771 3976 4701		1197 3357 4607
7 11 7 5 10 5 5 2 6 3 3 1 2 5 2 91 1122-1 160	4129 4491 4784		8812 4121 4719
^ ≥ 4 1 2 3 4 5 2 2 1 1 1 1 61 1392-1 84 5 1 1 1 1 61 1392-1 84 1 1 1 1 61 1392-1 84 1 1 1 1 1 61 1392-1 84 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	4319 5031 5139		910 4651 4881
6 :2 16 24 30 36 42 46 54 60 66 72 78 64 90 96+ MAX TE HOURS DURATION OF EVENTS		6 12 18 24 30 36 42 48 54 60 66 72 78 64 9096+ MAX TE HOURS DURATION OF EVENTS	T T+ TH
y , ≥ 64 5 2 12-2 7	46.3N 156.0W 9 9 4545	10 w≥64 1 1 1 12-1 2	3 3 4545
248 28 13 4 2 24-2 47	74 74 4545	" <del></del>	55 55 4545
£41 38 27 16 4 9 3 1 1 60 − 1 98	229 233 4553	N ≥ 41 44 17 16 6 1 1 1 1 66-1 86	174 174 4545
≥ 34 91 45 29 14 17 8 6 3 1 2 120-1 216	569 577 4560	≥ 34 59 41 38 22 16 6 4 2 2 1 1 72-1 191 5	535 536 4545
28 28 93 64 39 35 25 21 15 6 7 8 6 2 2 2 2 3 138 -1 328 1 2 2 2 72 62 36 42 35 27 25 11 10 10 8 7 6 3 4 22 216 -1 380	1230 1250 4560 2110 2153 4579	P	135 1146 4548 2045 2090 4564
<u> </u>	2890 2999 4590	·	2896 3016 4597
≥ 11 27 27 20 11 18 16 8 16 9 6 12 2 2 2 9 79 528 -1 264	3626 3942 4631		3737 4072 4797
. 2 7 11 4 11 4 5 7 12 9 2 6 4 1 1 4 3 72 966-1 156	3761 4474 4744		884 4580 4885
7 ≥ 4 4 3 4 2 2 4 2 5 2 1 1 2 45 1638 -1 77	3696 5092 5193		050 5251 5358
6 .2 18 24 30 36 42 48 54 60 66 72 78 84 90 96+ MAX TE HOURS DURATION OF EVENTS	Т Т• ТН	6 12 18 24 30 36 42 48 54 60 66 72 78 84 90 96+ MAX TE HOURS DURATION OF EVENTS	т ть тн
w ≥ 64 2	46.3N 135.2W 2 2 4545	w ≥ 64 2 6-2 2	46.3N 126.4W
¥ = 48   19 10   1   1   24-1   31	46 46 4545	·	2 2 4545 31 31 4545
4 = 4 1 39 23 1 5 3 1 36-1 82	159 159 4545	N ≥ 41 18 16 13 4 1 1 36 - 1 53	116 116 4545
≥ 34 77 40 21 17 12 7 3 3 1 1 1 66-1 182	455 458 4546	≥34 43 18 18 14 8 6 2 1 1 1 72-1 111 :	300 301 4545
3 ± 28 61 49 34 33 16 19 5 9 7 5 5 4 2 1 1 2 108 -1 253	999 1005 4548		653 660 4545
£ ≥ 22     54     56     52     35     25     17     24     8     13     6     6     5     5     5     5     4     16     162     -1     331     5       € ≥ 7     62     37     35     29     27     27     25     14     18     10     9     15     4     7     10     32     234     -1     361	1729 1773 4566 2523 2635 4585	_ <del> </del>	1288 1321 4546
0 2 1: 30 18 17 26 10 15 10 12 10 9 13 7 5 10 3 75 474-1 270	3438 3711 4628		2055 2131 4568 2975 3171 4599
v ≥ 7 14 14 5 11 8 3 4 10 3 7 2 5 2 3 4 80 1098-1 175	3891 4384 4774		1726 4085 4748
^ ≥ 4 1 3 3 3 2 2 1 1 1 1 2 3 2 2 62 1692-1 BB	4048 5014 5144	n ≥ 4 6 11 5 7 6 6 6 4 5 7 3 3 3 3 1 68 840-1 144 3	3907 4791 5041
6 12 18 24 30 36 42 48 54 60 66 72 78 84 90 96+ MAX TE HOURS DURATION OF EVENTS	т те тн	6 12 18 24 30 36 42 48 54 60 66 72 78 84 90 96+ MAX TE HOURS DURATION OF EVENTS	T T9 TH
Fall		23 Persistence of wind sp	eed.duretion
		EA I AISISIGNICO AI MING SD.	vou uui aiilli

	11-90
1 \$8.5N 151.6W	2 59.2N 145.7W
W≥64 6 5EA-5 6 2186 4912 4914 1≥48 1 11 SEA-3 12 2866 5333 5346	w≥64 5 SEA-5 5 1840 4566 4566 1≥48 1 1 14 SEA-4 16 3371 5741 5756
N ≥ 41 2 2 1 1 1 28 1800 - 1 34 2861 5135 5205	N 241 4 2 1 3 1 1 1 1 1 30 SEA-1 46 3539 5181 5279
≥34 7 5 1 1 3 4 5 2 3 3 1 1 2 1 66 1134-1 105 3917 4647 4907	≥34 9 6 1 4 8 2 4 5 5 4 1 2 1 3 61 1656-1 116 3753 4483 4809
S ≥ 28 15 1 9 12 17 8 10 8 9 6 4 7 6 4 3 83 582-1 202 3595 3973 4654	S ≥ 28 19 10 10 11 4 6 11 8 9 7 6 8 6 6 5 79 678-1 205 3434 3962 4670
E ≥ 22 39 30 39 24 18 23 21 13 10 9 5 10 6 10 11 53 444-1 321 2886 3129 4571	E ≥ 22 37 30 16 15 21 22 17 19 6 9 8 4 14 11 9 55 390-1 293 3005 3275 4633
E ≥ 17 66 50 50 39 35 28 20 14 16 6 4 5 6 9 5 24 222-1 377 2131 2273 4559	E ≥ 17 53 37 46 38 29 25 25 17 10 11 8 8 8 8 4 8 23 234-2 350 2240 2420 4554 D≥ 11 89 98 47 30 15 15 11 7 7 8 2 5 3 4 1 7 108-1 349 1294 1361 4547
D≥11 96 89 50 33 20 15 11 11 7 5 1 2 2 2 2 138-1 344 1128 1170 4550 k≥ 7 2661 28 15 8 8 3 1 1 1 1 1 72-1 252 530 540 4546	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$
n ≥ 4 99 24 8 6 1 1 36 1 139 206 212 4545	n ≥ 4 10826 7 3 3 1 1 48 -1 148 216 222 4545
6 12 18 24 30 36 42 48 54 60 66 72 78 84 90 95+ MAX TI T THE TH	6 12 18 24 30 36 42 48 54 60 66 72 78 84 90 96+ MAX TI T TO TH
HOURS INTERVAL BETWEEN EVENTS  54.4N 158.1W	HOURS INTERVAL BETWEEN EVENTS 4 56.2N 147.5W
w≥64 7 SEA-5 7 2546 5272 5275	w≥64 5 SEA-5 5 1840 4566 4566
1 ≥ 48 1 1 1 1 23 SEA-1 26 2980 5121 5176	1 ≥ 48     1     14     5EA-3     15     2962     5604     5620       N ≥ 41     2     2     2     2     1     1     1     1     30     1782-1     48     3673     5438     5525
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	N ≥ 41
S ≥ 28 34 27 16 22 24 17 16 6 15 / 6 11 5 2 4 77 480-1 289 3332 3676 4704	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$
E = 22 69 57 46 46 29 24 19 11 12 14 7 7 3 9 6 36 240-1 395 2505 2654 4567	E ≥ 22 40 37 22 22 16 19 17 13 10 8 6 14 9 7 5 58 306 - 1 303 2884 3090 4588
E ≥ 17 84 86 66 36 29 27 16 12 12 5 4 7 3 2 3 11 156-1 403 1727 1768 4555	E ≥ 17 62 66 47 49 29 13 18 15 12 14 7 8 B 4 4 21 258-1 377 2121 2196 4572
D ≥ 11 12974 45 20 14 9 9 5 1 2 1 102-1 309 765 773 4545	D≥11 93 77 51 27 15 5 18 6 6 4 4 4 2 2 120-1 314 1038 1048 4553
$k \ge 7$ 11935 20 12 5 2 1 1 84-1 194 348 349 4545 $n \ge 4$ 75 15 5 1 24-1 96 124 124 4545	$k \ge 7   0954   24   9   8   6   3   1   54-1   214   431   433   4545   1                             $
$^{\circ}$ $\geq$ 4 $ 75 15 5 1$	6 12 18 24 30 36 42 48 54 60 66 72 78 84 90 96+ MAX T: T Tm TH
HOURS INTERVAL BETWEEN EVENTS 5 56.8N 141.9W	HOURS INTERVAL BETWEEN EVENTS 6 50.9N 145.7W
W≥64 5 SEA-5 5 1840 4566 4566	w≥64 6 SEA-5 6 1883 4563 4566
1 ≥ 48 1 1 1 18 SEA-5 20 3565 5811 5840	N ≥ 48 1 5 2 2 1 1 2 24 SEA-1 38 3095 5486 5553
N 241 2 2 4 1 2 2 2 2 4 37 SEA-1 58 3974 5313 5440	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$
≥ 34 8 5 8 11 3 1 6 2 4 5	≥ 34   19   18   16   12   9   8   10   9   6   7   5   6   7   1   2   79   828 - 1   214   36   10   4207   4834   5 ≥ 28   51   52   35   38   16   16   11   8   9   7   7   7   2   8   55   732 - 1   338   3028   3289   4609
E ≥ 22 47 29 33 21 15 21 5 17 0 1 10 4 8 7 4 58 396 - 1 310 2869 3132 4660	E ≥ 22 97 59 47 28 16 24 17 13 17 7 5 3 10 1 31 420-1 375 2100 2260 4566
E ≥ 17 75 43 37 29 19 25 15 18 15 9 10 5 5 4 2 30 330 - 1 341 2122 2288 4609	E ≥ 17 10770 36 22 20 17 7 11 7 2 6 7 4 4 1 7 282-1 328 1315 1394 4553
D ≥ 11 98 76 39 29 21 18 16 10 6 2 2 2 3 1 3 2 108 -1 328 1140 1191 4557	D ≥ 11 93 40 21 22 7 10 5 2 3 2 2 1 1 1 102-1 210 585 601 4548
$k \ge 7$ 89 66 32 17 10 5 2 2 1 54-1 224 504 520 4545 $n \ge 4$ 97 24 4 2 2 2 3 36-2 131 187 188 4545	$k \ge 7$ $72$ $25$ $10$ $10$ $5$ $2$ $2$ $42-2$ $126$ $243$ $244$ $4545$ $10 \ge 4$ $48$ $11$ $1$ $1$ $1$ $1$ $1$ $1$ $1$ $1$
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	n ≥ 4 48 11 1 1 1 18-1 60 73 73 4545 6 12 18 24 30 36 42 48 54 60 66 72 78 84 90 96+ MAX TI T Te TH
HOURS INTERVAL BETWEEN EVENTS 7 51.7N 135.7W	HOURS INTERVAL BETWEEN EVENTS 8 49.0N 128.4W
W ≥ 64 5 5 1840 4565 4566	w≥64 6 SEA-6 6 2208 4860 486
1 ≥ 48 1 1 1 1 1 1 3 1 1 28 SEA-1 39 3838 5560 5625	1 ≥ 48 1 1 1 1 1 22 SEA-3 26 3764 5888 5922
N ≥ 41 : 1  4  2  7  2  4  4  5  3  4  4  4  4  1  2  54  1284 - 1  105  3910  4897  5108	D = 41 4 2 1 1 4 2 1 1 1 2 3 2 1 1 2 4 1 1 (6-1 6 7 33 1 50 1 4 5 153
≥ 34 17 10 17 13 6 9 10 9 10 3 7 9 2 2 4 75 732-1 203 3626 4319 4870 ≥ ≥ 28 46 38 24 14 17 19 23 77 13 8 6 7 7 7 3 66 600-1 315 3294 3594 4704	\$34   16   6   4   9   1   3   8   11   4   2   5   5   2   3   2   62   978-1   143   3732   4606   4993   5 ≥ 28   24   11   20   12   10   9   16   4   13   8   3   9   3   5   4   66   708-1   217   3430   3982   4725
E ≥ 22 90 56 45 37 17 21 25 11 11 13 9 B 5 5 5 30 414-1 388 2382 2582 4627	E \$22 44 44 18 22 14 23 18 19 20 10 10 6 4 4 56 504-1 312 2853 3193 4584
E ≥ 17 91 57 44 42 27 18 14 7 7 7 7 6 8 2 3 8 222-1 348 1534 1640 4549	E ≥ 17 71 55 45 22 27 28 16 21 8 6 7 3 3 4 3 35 258-1 354 2228 2357 4577
D ≥ 11 165 i 29 20 24 6 4 3 2 1 3 2 78 - 2 26 i 680 725 4545	D ≥ 11 94 70 47 30 28 19 7 6 8 5 3 6 1 1 2 4 120-3 331 1208 1260 4555
k ≥ 7 85 40 21 6 4 1 42-1 157 279 293 4545	k ≥ 7 89 54 42 16 10 8 4 2 1 1 2 78 -2 229 574 598 4545
n≥ 4 68 13 1 1 36-1 82 100 108 4545 6 12 18 24 30 36 42 48 54 60 66 72 78 84 90 96+ MAX T1 T T+ T+ T+	n≥ 4 88 29 10 5 5 1 42-1 138 228 230 4545
HOURS INTERVAL BETWEEN EVENTS	HOURS INTERVAL BETWEEN EVENTS
9 46.3N 156.0W w≥64 9 SEA-3 9 2279 5300 5309	10 45.6N 144.2W w≥64 6 SEA-5 6 1951 4646 4649
"≥48 1 1 1 1 1 2 1 1 1 1 2 35 1854-1 48 3070 4917 4991	1 248   2 1   1   1   22 SEA-2 28   3160   5505   5560
N = 41 7 5 4 2 3 1 5 2 3 3 3 1 1 4 3 52 1554-1 99 3616 4663 4888	N ≥41 3 1 5 2 1 3 2 2 3 1 3 3 2 4 52 SEA-1 87 3877 5104 5278.
≥ 34   27   13   16   15   8   13   7   6   6   8   6   5   10   7   3   66   1008 - 1   216   3409   4070   4632	≥ 34   18   10   16   6   7   7   6   9   4   6   8   7   4   10   64   13   14 ~ 1   189   3731   4355   489
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	S≥28 37 25 30 17 13 28 16 12 15 7 8 10 9 4 6 57 648 1 294 3243 3606 4749 E≥22 67 44 45 28 28 17 12 17 7 9 13 6 5 2 5 39 384 1 344 2365 2495 4566
E ≥ 17 91 78 47 41 28 15 15 7 8 7 6 4 2 1 3 11 252-1 364 1531 1607 4561	E ≥ 17 76 56 49 23 21 20 11 14 5 5 3 6 4 5 2 13 318-1 313 1490 1588 4552
D = 11 11160 39 24 13 6 5 5 1 3 1 1 72-1 269 682 692 4548	D ≥ 11 95 51 33 22 12 5 6 7 2 2 4 2 1 1 84-1 243 705 725 4545
k ≥ 7 96 32 16 9 3 1 36-1 157 265 270 4545	$k \ge 7$ 74 40 12 10 5 3 5 42-5 149 308 308 4548
$0.2 \pm 4 = 100 = 15 = 12$	$^{\circ}$ $\geq$ 4 $60   16   2   1   1                            $
HOURS INTERVAL BETWEEN EVENTS	HOURS INTERVAL BETWEEN EVENTS
11 46.3N 135.2W ₩ ≧ 64 6 5EA-5 6 2155 4880 4882	12 46.3N 126.4W ₩≩64 7 SEA-6 7 2511 5163 5165
≥ 48 2 2 1 2 1 26 SEA-2 34 3102 5503 5549	(≥48 1 1 1 1 1 1 19 SEA-4 24 3228 5311 5342
N 241 6 1 4 2 1 3 4 3 4 4 2 3 1 46 1410-1 84 3839 5088 5247	$ \stackrel{N}{D} \ge 41  2  2  1  2  2  1  2  1  1  $
≥ 34 19 8 12 8 7 4 14 10 10 6 9 3 7 4 5 58 786 - 1 184 3657 4376 4833	≥34 14 5 3 5 3 C 3 1 3 1 3 2 4 5 3 55 1032-1 112 3423 4704 5005
S≥28 31 25 20 12 13 15 14 18 12 7 11 8 5 2 60 576-1 253 3267 3696 4698 F≥22 47 58 41 29 27 19 16 12 13 8 3 5 9 1 5 41 402-1 334 2618 2842 4594	S≥28 23 11 15 10 8 6 5 14 3 4 5 8 4 3 1 70 708~1 190 3386 4095 4755 € ≥22 52 22 26 19 15 24 16 13 13 10 10 8 7 6 1 52 528~1 294 2926 3307 4627
E ± 22 47 58 41 29 27 19 16 12 13 8 3 5 9 1 5 41 402-1 334 2618 2842 4594 E ≥ 17 92 73 39 31 25 20 18 14 5 5 4 7 4 4 23 384-1 364 1845 1976 4571	$E \ge 17$ 56 50 37 28 25 18 17 9 5 12 10 5 3 2 6 43 240~1 326 2325 2497 4605
D ≥ 11 86 49 49 25 19 8 6 8 4 3 4 1 1 2 1 1 120-1 267 878 917 4545	D ≥ 11 95 72 35 30 23 24 9 B 6 7 2 7 2 2 1 12 222-1 335 1390 1434 455:
k ≥ 85 44 26 12 4 3 2 2 1 60-1 179 377 390 4545	$k \ge 7 176039.9128732111190-12696566664548$
0 ≥ 4 71 11 5 2 1 1 36 -1 91 127 130 4545	n ≥ 4 90 38 14 5 1 2 1 42-1 151 252 252 4547
6 12 18 24 30 36 42 48 54 60 66 72 78 84 90 06+ MAX 71 T TO THE HOURS INTERVAL BETWEEN EVENTS	6 12 18 24 30 36 42 48 54 60 66 72 78 84 90 96+ MAX TI T TO THE HOURS INTERVAL BETWEEN EVENTS
3 Persistence of wind speed-interval	F <sub>t</sub>
a i didiotolido di milia abada ilitaliai	• •

100L	50.21
1 58.5N 151.6W w ≥ 64 2 1 1-1 3 4 4 17219	2 59.2N 145.7W w≥64 1 1 1 1.7219
¥ ± 48 11 7 5 1 1 1-1 24 45 45 17219	1 ≥ 48 14 8 1 1 1 1 1 1 1 24 37 37 17219
N ≥ 41 36 23 10 4 9 2-2 82 179 179 17219	$\stackrel{N}{D} \ge 41 \ 28 \ 27 \ 11 \ 10 \ 5$
≥ 34 88 58 49 26 30 4 3-1 255 664 664 172 19	≥ 34 90 44 49 27 34 4 3 3-1 248 668 670 172 19
\$ \ge 28   25  96   96   49   99   19   5   2   1   5 - 1   492   1712   1724   17219	$S \ge 28 + 42 + 0770 = 59 = 75 = 19 = 5 = 2 = 1 = 1 = 1 = 1 = 1 = 1 = 1 = 1 = 1$
E ≥ 22 176 15 43 08 20 360 18 8 9 8 -1 840 3765 38 10 17219 E ≥ 17 169 38 21 25 29 1 08 5 1 24 27 2 15 -1 1056 6246 6405 17219	E ≥ 22 1771 1499 89 17 143 22 10 8 9-1 733 3268 3328 7219 E ≥ 17 1499 40 050 08246 0542 16 26 3 16-1 940 5494 5636 7219
D ≥ 11 628 158 1081 521 5677 48 91 19 2 12-1 1182 10217 10587 :7219	D ≥ 11 81 39 02 04267 65 73 43 74 17 1 24 -1 1166 9421 9688 7219
x ≥ 7 1267 67 58 97 38 96 76 3945 5 30-1 1000 12998 13789 17219	$k \ge 7$   65  16 88 59 209 31 97 62 34 39 6 1   35-1 1107 12463 13145 17219
n ≥ 4 64 29 34 26 96 67 60 48 4270 16 5 1 67-1 658 13920 15662 17219	n ≥ 4 87 78 41 32 96 79 49 44 39 76 15 5 1 70 - 1 742 13981 15473 17219.
25 .5 /5   2 3 4 5 10 20 30 60 90 180360 00 MAX TE T TW TH DAYS DURATION OF EVENTS	25 5 75 1 2 3 4 5 10 20 30 60 90 180360 00 MAX TE T T+ TH  DAYS DURATION OF EVENTS  55 2N 147 5W
3 54.4N 158.1W	4 30.2N 147 JW
$w \ge 64 \ 4 \ 2 \ 1 \ 1 \ 1 \ 1 \ 1 \ 1 \ 1 \ 1 \ 1$	w ≥64 17219 1 ≥48 14 3 5 1 1 1-1 23 39 39 17219
≥48 39 11 9 6 7 1	N ≥41 55 21 13 6 5 2-1 100 186 186 17219
≥ 34  43 94 74 56 69 10 3    4-1   449   1328   1340   172 19	D ≥ 34   0567 42   29   36   2   3 - 1   281   704   705   172   19
§ ≥ 28 207 42 3381 72 32 7 4 7-1 778 2776 2816 17219	S ≥ 28 15 190 92 51 1 1 1 16 5 4-2 516 1721 1730 172 19
E ≥ 22 229 B5 56 12279 1336 15 12 B-1 1137 5433 5530 17219	E ≥ 22 172145 27 111207 57 18 14 8 7-1 859 3851 3901 17219
E ≥ 17 210164135144925145 99 39 46   10-1 1307 8430 8641 17219	E ≥ 17 98 54 25 24300 3449 32 26 1 10 - 1 1143 6617 6749 17219  D ≥ 11 13199 0080 275 844 0954 11413 19 - 1 1159 10924 11465 17219
$^{\text{D}} \ge 11$   $12365$   $186$   $184$   $186$   $1$	2 ≥ 11     13199 0080 275 84 0954 11413     19-1     1159     10924     11465     17219       k ≥ 7     64 54 41 42 45 2295 54 55 63 6     26-1     841     13296     14569     17219
$n \ge 4$ 28 8 9 11 33 31 26 26 92 82 21 19 1 63 - 1 387 14117 16532 17219	$n \ge 4$ 44 12 18 18 51 51 32 40 08 94 16 9 52-1 493 13688 16 144 172 19
25 5 75 1 2 3 4 5 10 20 30 60 90 180360 00 MAX TE T THE THE	25 5 75 7 2 3 4 5 10 20 30 60 90 180360 00 MAX TE T To TH
DAYS DURATION OF EVENTS 56.8N 141.9W	DAYS DURATION OF EVENTS 50.9N 145.7W
W ≥ 64 17219	w≥64 1 1 1 1-1 2 3 3 17219
≥48 13 8 6 1-6 27 47 47 17219	ı ≥48 34 18 9 4 1-4 65 113 :7219
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	N 441 89 58 35 16 16 2-1 214 459 467 17219 ≥34 555 1585 45 73 12 2 4-1 487 1387 1408 17219
5 ≥ 28 13095 66 55 10722 7 4-3 482 1698 1720 17219	S ≥ 28 221 600 1884 81 56 10 6 5-1 830 3156 3190 1 77219
F ≥ 22 172 34 13 72 215 67 16 3 10 8 - 1 802 3607 3664 172 19	$P \ge 22 \ 224 \ 32 \ 40 \ 13279 \ 10958 \ 35 \ 15$ $9-1 \ 1105 \ 6054 \ 6149 \ 17219$
E ≥ 17 90 57 14 03262 2948 19 31 10-1 1053 6080 6208 17219	E ≥ 17   97  35  34 92   275  59 81   52   77   8     14 - 1   1210   9193   9511   17219
$0 \ge 11   57   106   16   10   129   1898   1   50   92   10   19-1   1193   10139   10522   17219$	U ≥ 11 93 47 50 52 78 09 94 60 34 57 5 24 - 1 879 12596 13646 17219
$x \ge 7 \   \   \   \   \   \   \   \   \   \$	$k \ge 7$ 52 31 32 18 72 59 32 42 1777 28 6 42-1 566 13627 15703 17219 $n \ge 4$ 16 16 8 11 20 20 17 10 59 50 27 23 6 87-1 283 13457 16651 17219
25 5 75 - 2 3 4 5 -0 20 30 60 90 180 360 00 MAX TE T TH TH	25 5 75 1 2 3 4 5 10 20 30 60 90 180360 00 MAX TE T T+ TH
DAYS DURATION OF EVENTS 7 51.7N 135.7W	DAYS DURATION OF EVENTS 8 49.0N 128.4W
w≥64 1 1 1 1 1 1 1 1 1 1 3 3 3 17219	w≥64 1 1 1 1 1.7219
· ≥48 36 22 10 4 1-4 72 126 126 17219	1 ≥ 48 30 11 4 1-4 45 64 64 17219.
$\stackrel{\text{N}}{=}$ 41 97 55 26 12 12 1 2-1 203 404 407 17219	N ≥ 41 65 33 15 7 6 1 2-1 127 250 250 :7219
$\geq 34 + 3910882 = 56 = 53 = 6$ $3-1 + 444 = 1181 = 1190 = 17219$ $5 \geq 28 + 9.0541 = 1091 + 5 = 12710 = 4-3 + 736 = 2509 = 2542 = 17219$	≥34     95     79     49     22     34     7     3-2     286     757     758     7219       5 ≥28     27     1471     60     92     18     2     1     5-1     485     1582     1604     17219
E ≥ 22 1991844 386 17270 74 45 16 7 8-1 1050 4988 5055 17219	P ≥ 22 201 4298 87 9052 21 5 4 7-1 800 3327 3383 17219
£ ≥ 17 198/144/26/75 304/14/27 1 30 65 1 11-1 1156 7870 8012 17219	E ≥ 17 223 65 144 13232 1744 22 24 2 11-1 1056 5754 5896 :7219
≥ 11 137/85 87 63 239 42 08 64 120 31 3 25 - 1 1079 11924 12406 17219	D ≥ 11 96/63/11/70 266/61/03/52/89/18 16-1 1229 10280 10641 *7219
2 7 68 41 26 42 11 88 63 50 66665 16 3 47-1 739 14117 15037 17219	$k \ge 7$   26 99 64 59 47 15 84 53 136 70 3 2 36 - 1 958 13386 14 162 172 9 $n \ge 4$ 42 41 18 21 68 48 49 25 89 81 28 17 1 70 - 1 523 14 28 7 16 133 172 19
$^{\circ} \ge 4$   22   23   12   11   45   25   24   19   92   69   32   17   1	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$
DAYS DURATION OF EVENTS 46.3N 156.0W	DAYS DURATION OF EVENTS 10 45 6N 144.2W
w ≥64 : 7 3 i   1-1 11 17 17 17218	w≥64 2 1 1 1 1 1 1 1 1 1 3 4 5 17218
≥48 58 24 8 3 1 2-1 94 148 150 17218	≥48 26 13 6 1 3 2-1 49 92 95 17218
9 ≥41 125 66 36 13 21 1 3-1 262 542 548 17218	N ≥ 41 83 42 36 12 7 1 3-1 18: 373 377 17218
≥ 34 24 1 32 10 2 5 3 8 1 8 2 5 - 1 6 19 1601 1623 172 18	234 4299 73 43 68 10 3-1 435 1228 1245 172 6 5 ≥ 28 9 7 35 1 1 9 7 5 6 4 1 1 4 4 1 1 1 1 - 1 7 5 6 285 8 289 172 18
5 ≥ 28 266 72 34 15 93 54 11 5 2 6-1 946 3478 3541 17218 € ≥ 22 256 90 25 3300 1057 19 25 1 11-1 1218 6362 6475 17218	S ≥ 28 (97) 35 (1) (97) (564 (1) (4 4 1 1 11-1 756 2858 2898 : 172 (18 18 18 18 18 18 18 18 18 18 18 18 18 1
[. ≥ 17 210150122108296]6583 58 64 9   12-1 1265 9280 9636 17218	E ≥ 17   698∪ 97   71   270   2981   50   80   9     16-1   1042   8638   8928   17218
0 ≥ 11 1979 72 60 201 0383 67 13653 5 1 31~1 979 12664 13578 17218	D ≥ 11 0757 64 45 77 0488 56 36 50 6 29-1 890 12278 13148 17218
x ≥ 7 49 16 30 31 10448 47 50 1581 18 8 40-1 597 13660 15655 17218	k ≥ 7 55 18 25 14 76 65 44 43 117,77 22 9 50 -1 565 13806 15421 17218
7 ≥ 4 20 12 10 11 32 16 18 12 64 58 17 30 3 80 -1 303 13014 16664 17218	7 2 4 22 14 8 9 22 23 22 27 55 67 24 21 2 2 109 -1 318 13719 16562 17218
DAYS DURATION OF EVENTS	DAYS DURATION OF EVENTS
11 46.3N 135.2W w ≥64 3 3 3 17219	12 46.3N 126.4W w≥64 2 2 2 17219
≥48 33 16 6 2 1-2 57 91 91 17219	i ≥ 48 24 9 5 1 2-1 39 63 63 17219
N = 41 69 47 20 9 8 2-1 153 302 303 17219	N ≥ 41 40 27 23 6 5 1 3-1 102 226 226 17219
≥ 34 170 80 53 36 47 3 1	≥ 34 B3 43 37 24 33 2 1 4-1 223 601 604 17219
5 ≥ 28 79 29 95 8 1 22 35 8 1 1 6-1 65 1 2288 2310 172 19	S ≥ 28   4779   63   38   79   23   2   4-2   433   1403   1419   17219
E ≥ 22 906 69 46 90 213 74 43 14 11 9-1 950 4553 4638 17219 E ≥ 17 218 34 18 09 249 3469 38 45 4 15-1 1118 7335 7543 17219	E ≥ 22 218 11 104 77 15 170 13 6 4 10-1 754 3110 3169 172 19 E ≥ 17 29 158 1990 222 85 51 21 28 1 11-1 1066 5442 5595 172 19
D ≥ 11 1328 181 71 20514 110249 12834 1 24-1 1025 11512 12122 17219	D ≥ 11 74204 2277 261 45 90 F0 77 18 1 21-1 1329 9890 10274 17219
y ≥ 7 95 39 41 29 1081 55 44 3975 13 5 46-1 726 13755 14958 17219	$k \ge 7 \begin{array}{ c c c c c c c c c c c c c c c c c c c$
7 ≥ 4 28 9 11 12 38 32 28 20 82 67 24 18 3     71-1 372 13840 16418 17219	n ≥ 4 82 53 31 17 74 64 49 33 97 97 21 9 35-1 627 14286 15962 17219
25 :5 75 1 2 3 4 5 10 20 30 60 90 180 360 00 MAX TE T T# TH DAYS DURATION OF EVENTS	25 .5 75 1 2 3 4 5 10 20 30 60 90 180360 00 MAX TE T TH TH DAYS DURATION OF EVENTS
Annual	23 Persistence of wind speed-duration
	==

Annual

23 Persistence of wind speed-duration

1 58.5N 151.6W	2 59.2N 145.7W
w≥64 17215 17219	w≥64 17218 17219
1 ≥ 48 3   1 1 1 1 3 3   79-1 12 1700 17174 17219	≥48 2     1   2   1   3   1   1   72-1   11   938   17182   17219
N = 41   3   2   1   2   1   15   14   9   10   2	N ≥ 41 7 2 8 4 2 1 8 9 5 8 2 1 1 233-1 58 4716 17037 17219
≥ 34 19 14 5 2 25 19 13 8 47 41 22 8 1 3 179-1 227 10056 16555 17219	≥ 34 24 11 5 6 25 21 10 10 48 32 16 9 2 2 1 213-1 222 9386 16549 17219
S ≥ 28 38 15 21 24 74 52 31 31 96 59 13 4 2 4   158 - 1 464   12820   15495   17219	S ≥ 28 49 21 19 22 62 59 39 26 90 51 7 1 4 158-1 450 10649 15632 17219
E ≥ 22 94 68 70 44 70 94 90 34 106 32 7 10 3 85-1 822 12305 13409 17219	F ≥ 22 88 55 46 39 14776 76 48 85 39 6 5 3 1 93-1 714 11635 13891 17219
E ≥ 17 63 23 1291 230 05 73 38 78 20 7 6 51-1 1046 10197 10814 17219	E ≥ 17 10810491 78 233 89 78 35 77 25 4 8 1 82-1 931 10634 11583 17219
≥ 11 280228 5 1 06212 10 154 23 28 7 1 26-1 1191 6471 6632 17219	D ≥ 11 255211 36101230 91 57 25 43 14 2 27-1 1167 7321 7531 17219
$k \ge 7                                    $	$k \ge 7  964 253 44 97 73 57 13 11 11        9-1  1120   3981   4074   17219 $
n ≥ 4 365 40 73 44 50 8 2 2 2 6-1 686 1541 1557 17219	n ≥ 4 394 78 78 47 50 15 1 3 B-1 766 1706 1746 17219
.25 .5 .75 : 2 3 4 5 10 20 30 60 90 180360 00 MAX TI T T= TH	.25 .5 .75 i 2 3 4 5 10 20 30 60 90 180360 00 MAX Ti T To TH
DAYS INTERVAL BETWEEN EVENTS	DAYS INTERVAL BETWEEN EVENTS
3 54.4N 158.1W	4 56.2N 147.5W
w≥64 17207 17219	W≥64 17219 17219
<u>1 ≥ 48 4 1 3 1 1 8 7 7 15 3 2 1 208 - 1 53 7010 17059 17219</u>	1 2 2 1 3 1 1 233-1 12 2066 17180 17219
N ≥ 41 16 5 5 1 11 17 6 7 44 47 21 11 2 5 178-1 198 11269 16707 17219	$\stackrel{N}{\overset{N}{=}} 41   2   2   2   1   4   4   5   1   9   14   8   20   2     2     232 - 1   76   7737   17033   17219  $
≥34 33 12 17 20 69 42 31 20 78 73 16 3 4 3 145-1 421 12930 15879 17219	≥ 34 23 11 7 8 26 21 11 18 44 54 10 15 3 162-1 251 10192 16514 17219
$S \ge 28 \ 70 \ 68 \ 49 \ 46 \ 34 \ 94 \ 57 \ 55 \ 10261 \ 10 \ 5 \ 3$ $75 \sim 1 \ 754 \ 12861 \ 14403 \ 17219$	S ≥ 28 54 28 25 28 69 57 36 20 85 63 11 9 1 3 143-1 489 12603 15489 17219
	P
·   - + -+ +	
E ≥ 17 235 229 1751 27 266 1 16 67 30 53 7 3 1 31~1 1309 8272 8578 17219	E ≥ 17 644 444 199 26208 3175 51 84 28 2 1 31-1 1133 10087 10470 17219
D ≥ 11 36724616688 8052 25 9 5 1 13~1 1139 4048 4131 17219	D ≥ 11 28/224 63009205 0242 21 17 5 13-3 1175 5668 5754 17219
$k \ge 7 \frac{372}{67} \frac{67}{02} \frac{49}{63} \frac{63}{10} \frac{10}{5} \frac{5}{2} \frac{1}{1} \frac{1}{10} \frac{6-1}{10} \frac{771}{1808} \frac{1827}{17219}$	k ≥ 7 5 13 1 96 1 18 76 1 15 35 8 1 4 7-1 866 2603 2650 172 19
$n \ge 4$ 277 84 31 7 12 3 1 4-1 415 677 687 17219	n ≥ 4 281 1862 24 29 2 1 1 5-1 524 1042 1075 17219
25 5 75 ( 2 3 4 5 10 20 30 60 90 180360 00 MAX TI T TE TH	25 5 75 ; 2 3 4 5 10 20 30 60 90 18 360 00 MAX TI T TH
DAYS INTERVAL BETWEEN EVENTS	DAYS INTERVAL BETWEEN EVENTS
5 56.8N 141.9W	6 50.9N 145.7W w≥64 11-1 1 43 17216 17219
W≥64 17219 17219	"
1 248 1 1 1 4 1 4 1 1 124-1 12 1537 17172 17219 1 248 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 ≥ 48 2 5 1 3 3 2 5 8 9 9 2 76-1 49 3551 17106 17219
$\stackrel{N}{D} \ge 41 \ 3 \ 1 \ 2 \ 4 \ 6 \ 6 \ 1 \ 3 \ 13 \ 18 \ 10 \ 9 \ 2 \ 1 \ 2 \ 283 - 1 \ 81 \ 7261 \ 16992 \ 17219$	$\stackrel{N}{D} \ge 41  [14]  [2]  [8]  [5]  [17]  [20]  [10]  [16]  [34]  [36]  [15]  [8]  [1]  [2]  [2]  [229 - 1]  [190]  [9544]  [16752]  [172]  [9]$
≥34  21  10  12  10  25  16  19  11  49  36  16  11   1   3   1   190-1  241   10449   16478   17219	≥ 34 44 37 27 21 74 42 38 39 57 54 14 6 1 4 152-1 458 11523 15811 17219
S ≥ 28 53 21 24 20 61 55 41 21 82 53 11 6 1 3 158 -1 452 11370 15499 17219	5 ≥ 28 105 94 67 63 14 184 54 40 93 54 7 4 4 82 -1 810 1218 i 14029 17219
$\frac{2}{5} \ge 22 \ 93 \ 72 \ 75 \ 40 \ 5389 \ 57 \ 46 \ 99 \ 38 \ 9 \ 6 \ 4$ $74-1 \ 781 \ 11967 \ 13555 \ 17219$	F = 22 225 201 1273 2:61 1651 53 83 30 7 3 57-1 1089 10497 11070 17219
E ≥ 17   72  20  00  77   221  10  69  37  87  36  8  1   45 - 1   1030   476   1011   17219	F > 17 300 205 1 19 1 100 16 1 125 7 33 39 19 20 - 1 1210 7479 7708 172 19
	D ≥ 11 2861731C992 14846 26 6 13 9-1 899 3536 3573 17219
$k \ge 7 331 2301 33 77 15341 8 6 9 7 7 988 3275 3351 17219$	$k \ge 7$ 274 2076 49 58 9 5 1 2 7-1 594 1507 1516 122.9
<sup>0</sup> ≥ 4 346 3357 28 36 7 3 3 5 5 -1 613 1272 1283 17219	n ≥ 4 19470 24 12 14 1 1 1 5-1 316 566 568 72 9
25 5 /5 1 2 3 4 5 10 20 30 60 VO (80360 00 MAX TI TO TH	.25 5 75 i 2 3 4 5 i0 20 30 60 y0 i80360 00 MAX TI T T+ TH
DAYS INTERVAL BETWEEN EVENTS 7 51.7N 135.7W	DAYS INTERVAL BETWEEN EVENTS  8 49.0N 128.4W
W ≥ 64 17216 17219	w≥64 172'8 7219
W=48 2 1 1 2 5 3 4 5 5 9 9 3 1 1 194-1 51 4963 17093 17219	W=048 1 1 1 1 2 2 1 1 1 4 4 5 2 2 3 120~1 29 3327 17:55 172:19
\\\\\\\\\	, , , , , , , , , , , , , , , , , , ,
$0 \ge 41 \   13 \   8 \   4 \   7 \   21 \   21 \   12 \   8 \   29 \   21 \   17 \   14 \   2 \   2 \                          $	$ \overset{N}{D} \ge 41 \ \ \begin{array}{ c c c c c c c c c c c c c c c c c c c$
	≥ 34  26   12   7   16   40   29   15   17   40   35   10   11   1   1   1   1   212 - 1   26   1   8665   1646   172   19
≥ 34 41 27 34 22 61 49 34 20 68 36 14 7 4 3 152-1 420 11192 16029 17219	
$\stackrel{>}{>} \ge 28  05/74 54 34 22 61 49 34 20 68 36 14 7 4 3   152-1 420   1192   1629   1/219   152-1 420   1721   1629   1/219   1721   1629   1/219   1721   1629   1/219   1721   1629   1/219   1721   1629   1/219   1721   1629   1/219   1721   1629   1/219   1721   1$	$S \ge 28 \ 44 \ 28 \ 32 \ 31 \ 72 \ 56 \ 35 \ 30 \ 70 \ 44 \ 9 \ 4 \ 3 \ 1 \ 192 \ 1459 \ 10637 \ 15615 \ 17219$
_ \-\+\+\-\-\+\-\+\-\+\-\+\-\+\-\+\-\+\-\	<u> </u>
$\begin{array}{llllllllllllllllllllllllllllllllllll$	S ≥ 28 44 28 32 31 72 56 35 30 70 44 9 4 3 1 192-1 459 10637 15615 17219 E ≥ 22 10587 59 56 16380 48 42 93 32 5 8 2 2 125-1 782 11698 13836 17219
$\begin{array}{llllllllllllllllllllllllllllllllllll$	S ≥ 28 44 28 32 31 72 56 35 30 70 44 9 4 3 1 192-1 459 10637 15615 17219 E ≥ 22 0587 59 56 6380 48 42 93 32 5 8 2 2 125-1 782 11698 13836 17219 E ≥ 17 774 46 1069 23087 54 47 88 31 8 2 1 72-1 1047 10526 11323 17219
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$
S ≥ 28 05 74 54 34 27 B; 51 41 74 46 12 7 4 1 102-1 711 12272 14677 17219 E ≥ 22 205 32 91 79 88 1163 33 84 31 7 5 1	$S \ge 28$ 44 28 32 31 72 56 35 30 70 44 9 4 3 1 192~1 459 10637 15615 17219 $E \ge 22$ 10587 59 56 16380 48 42 93 32 5 8 2 2 125~1 782 11698 13836 17219 $E \ge 17$ 774461 1069 23087 54 47 88 31 8 2 1 72-1 1047 10526 11323 17219 $E \ge 17$ 774464 1069 23087 54 47 88 31 8 2 1 72-1 1047 10526 11323 17219 $E \ge 17$ 75464 92 219 95 37 25 42 5 172-2 1231 6356 6578 17219 $E \ge 17$ 755207 5768 4032 12 7 5 5 1 2 3 4 5 10 20 30 60 90 180360 $E \ge 17$ 1077 1086 17219 $E \ge 17$ 1077 1086 17219 $E \ge 17$ 1078 1079 1086 17219 $E \ge 17$ 1079 1086 17219 $E \ge 17$ 1079 1086 17219 $E \ge 17$ 1079 1086 17219 $E \ge 17$ 1086 17219 $E \ge 17$ 1087 1087 1088 1098 1098 1098 1098 1098 1098 1098
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	S ≥ 28 44 28 32 31 72 56 35 30 70 44 9 4 3 1 192-1 459 10637 15615 17219 E ± 22 10587 59 56 16380 48 42 93 33 2 5 8 2 2 125-1 782 11698 13836 :7219 E ≥ 17 744 46 1069 20 87 54 47 88 31 8 2 1 72-1 1047 10526 13836 :7219 E ≥ 17 124 228 64 92 219 95 37 25 42 5 17219 E ≥ 17 224 228 64 92 219 95 37 25 42 5 17219 E ≥ 7 255 207 57 68 40 32 12 7 5 1 5-1 978 2988 3057 17219 E ≥ 7 255 207 57 68 40 32 12 7 5 1 5-1 978 2988 3057 17219 E ≥ 7 25 5 20 1 5 20 30 60 90 180360 2
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	S≥28 44 28 32 31 72 56 35 30 70 44 9 4 3 1 192-1 459 10637 15615 17219 E≥22 (0587 59 56 6380 48 42 93 32 5 8 2 2 125-1 782 11698 13836 17219 D≥11 324228 6492 2995 37 25 42 5 17-2 1231 6356 6578 17219 D≥11 324228 6492 2995 37 25 42 5 17-2 1231 6356 6578 17219 D≥13 24228 6492 2995 37 25 42 5 17-2 1231 6356 6578 17219 D≥13 24228 6492 2995 37 25 42 5 17-2 1231 6356 6578 17219 D≥3 25 27 57 68 40 32 12 7 5 5 17 23 10 55 10 77 1086 17219 D≥3 3021 3947 21 39 5 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	S ≥ 28 44 28 32 31 72 56 35 30 70 44 9 4 3 1 192-1 459 10637 15615 17219 E ≥ 22 10587 59 56 63 80 48 42 93 32 5 8 2 2 125-1 782 11698 13836 17219 E ≥ 17 774 46 1069 230 87 54 47 88 31 8 2 1 72-1 1047 10526 11323 17219 D ≥ 11 32428 6492 219 95 37 25 42 5
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	S ≥ 28
S ≥ 28   0.5 74   54   34   27   85   51   41   74   46   12   7   4   1   102-1   711   12272   14677   17219   E ≥ 22   205   32   91   79   89   11   63   33   84   31   7   5   1   62-1   1031   10799   12164   17219   E ≥ 17   234   66   20   72   72   120   62   27   72   18   3   1   33   -1   1147   8747   9207   17219   E ≥ 18   25   25   25   25   25   25   25   2	S ≥ 28 44 28 32 31 72 56 35 30 70 44 9 4 3 1 192-1 459 10637 15615 17219 E ≥ 22 10587 59 56 63 80 48 42 93 32 5 8 2 2 125-1 782 11698 13836 17219 E ≥ 17 774 46 1069 230 87 54 47 88 31 8 2 1 72-1 1047 10526 11323 17219 D ≥ 11 32428 649 92 81 95 37 25 42 5 1 72 1231 6356 6578 17219 k ≥ 7 55550 5768 4032 12 7 1 525 12 3 4 5 10 20 30 60 90 180360 ∞ MAK 71 7 1086 17219 D ≥ 13 23 4 5 10 20 30 60 90 180360 ∞ MAK 71 7 1 7 1086 17219 D ≥ 13 23 4 5 10 20 30 60 90 180360 ∞ MAK 71 7 1 7 1086 17219 D ≥ 13 23 4 5 10 20 30 60 90 180360 ∞ MAK 71 7 1 7 1086 17219 D ≥ 13 23 4 5 10 20 30 60 90 180360 ∞ MAK 71 7 1 7 1086 17219 D ≥ 13 23 4 5 10 20 30 60 90 180360 ∞ MAK 71 7 1 7 1 1086 17219 D ≥ 13 23 4 5 10 20 30 60 90 180360 ∞ MAK 71 7 1 7 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
S ≥ 29   105   74   54   34   27   81   51   41   74   46   12   7   4   1   102 - 1   711   12272   14677   17219   E ≥ 22   205   3291   79   894   1163   33   84   31   7   5   1   62 - 1   1031   10799   12164   17219   E ≥ 17   234   661   2010   7217   2062   27   72   18   3   1   33   1   1147   8747   9207   17219   E ≥ 18   354   861   2597   8066   5397   8066   30   20   15   3     1   13 - 1   1085   4644   4813   17219   E ≥ 7   320   660   09   48   81   23   10   4   2	S ≥ 28 44 28 32 31 72 56 35 30 70 44 9 4 3 1 192-1 459 10637 15615 17219 E ≥ 22 10587 59 56 6380 48 42 93 32 5 8 2 2 125-1 782 11698 13836 17219 D ≥ 11 324 228 649 2 29 95 37 25 42 5
S ≥ 28   0.5   74   54   34   27   81   51   41   74   46   12   7   4   1	S ≥ 28
S ≥ 28   0.5   74   54   34   \$2   Bi   51   41   74   46   12   7   4   1   102-1   711   12272   14677   17219   E ≥ 22   20.5   3.29   179   89   1163   33   84   31   7   5   1   62-1   1031   10799   12164   17219   E ≥ 17   224   664   20   0.7   17   120   22   27   21   8   3   1   33-1   1147   8747   9207   17219   E ≥ 18   25   25   25   25   25   25   25   2	S ≥ 28
S ≥ 28   05   74   54   34   27   81   51   41   74   46   12   7   4   1   102-1   711   12272   14677   17219   E ≥ 22   22   23   13   29   179   89   1163   33   84   31   7   5   1   62-1   1031   10799   12164   17219   E ≥ 17   234   661   2010   7217   2062   27   72   18   3   1   33   1   1147   8747   9207   17219   E ≥ 18   354   864   2597   8066   309   18   65   30   20   15   3     132-1   1085   4644   4813   17219   E ≥ 7   320   661   09   48   81   23   10   4   2	S ≥ 28
S ≥ 28   0.5   74   54   34   \$2   Bi   51   41   74   46   12   7   4   1   102-1   711   12272   14677   17219   E ≥ 22   20.5   3.29   179   89   1163   33   84   31   7   5   1   62-1   1031   10799   12164   17219   E ≥ 17   224   664   20   0.7   17   120   22   27   21   8   3   1   33-1   1147   8747   9207   17219   E ≥ 18   25   25   25   25   25   25   25   2	S ≥ 28
S ≥ 28   0.5   74   54   34   \$2   Bi   51   41   74   46   12   7   4   1   102-1   711   12272   14677   17219   E ≥ 22   20.5   3.29   79   89   1163   33   84   31   7   5   1   62-1   1031   10799   12164   17219   E ≥ 17   224   668   20.0   72   72   72   72   72   73   73   1147   8747   9207   17219   E ≥ 18   22   20.5   668   20.0   72   72   72   73   73   73   73   73	S ≥ 28
S ≥ 28   05   74   54   34   27   81   51   41   74   46   12   7   4   1   102-1   711   12272   14677   17219   E ≥ 22   22   23   32   17   83   11   63   33   84   31   7   5   1   62-1   1031   10799   12164   17219   D ≥ 11   35   86   20   07   17   20   62   27   72   18   3   1   33   31   1147   8747   9207   17219   D ≥ 11   35   86   35   97   80   65   30   20   15   3     13-1   1085   4644   4813   17219   E ≥ 7   320   66   09   48   81   23   10   4   2	S ≥ 28
S ≥ 28   05   74   54   34   27   81   51   41   74   46   12   7   4   1   102-1   711   12272   14677   17219   E ≥ 22   22   23   32   17   83   11   63   33   84   31   7   5   1   62-1   1031   10799   12164   17219   E ≥ 17   234   661   2010   7217   2062   27   72   18   3   1   33   31   1147   8747   9207   17219   E ≥ 18   354   864   3597   8066   309   18   3   1   3   1   33   1   1147   8747   9207   17219   E ≥ 18   354   864   3597   8066   30   01   5   3   1   33   1   1147   763   784   17219   E ≥ 2   23   25   25   25   27   27   28   1   20   30   80   90   18   30   90   18   30   90   18   30   E ≥ 2   23   24   27   27   27   27   27   27   27	S ≥ 28
S ≥ 28   0.5   74   54   34   \$2   Bi   51   41   74   46   12   7   4   1   102-1   711   12272   14677   17219   E ≥ 22   20.5   3.69   179   89   1163   33   84   31   7   5   1   62-1   1031   10799   12164   17219   E ≥ 17   224   664   20.0   72   17   20.6   2   7   7   18   3   1   33-1   1147   8747   9207   17219   E ≥ 18   25   25   25   25   25   20   15   3   1   33-1   1147   8747   9207   17219   E ≥ 18   25   25   25   25   25   31   23   10   4   2   3   4   5   13   1084   444   4813   17219   E ≥ 2   20.66   0.9   48   81   23   10   4   2   3   4   5   13   1   1085   4644   4813   17219   E ≥ 2   25   25   25   3   3   10   4   2   3   4   5   10   20   30   60   90   180   30   E ≥ 2   25   25   25   2   3   4   5   10   20   30   60   90   180   30   E ≥ 2   25   25   25   25   25   33   37   31   5   2   3   1   E ≥ 48   2   2   1   2   8   1   7   5   8   19   8   5   4   2   1   231-1   75   6348   17068   17218   E ≥ 2   24   15   23   39   6   27   15   61   38   62   33   2   2   3   39   1   10   1   3   138   1   10   1   3   1   1004   3589   3640   17218   E ≥ 2   2   36   37   86   77   71   19   70   48   90   38   12   4   3   39   1   1004   3589   3640   17218   E ≥ 2   2   36   37   38   38   38   38   38   38   38	S ≥ 28
S ≥ 28   05   74   54   34   27   81   51   41   74   46   12   7   4   1   102-1   711   12272   14677   17219   E ≥ 22   20   32   91   79   89   1163   33   84   31   7   5   1   62-1   1031   10799   12164   17219   E ≥ 17   234   661   2010   7217   2062   27   72   18   3   1   33   1   1147   8747   9207   17219   E ≥ 18   354   863   2597   8066   309   18   30   10   4   2	S ≥ 28
S ≥ 28   05   74   54   34   27   81   51   41   74   46   12   7   4   1   102-1   711   12272   14677   17219   E ≥ 22   22   23   32   34   34   37   83   11   63   33   84   31   7   5   1   62-1   1031   10799   12164   17219   D ≥ 11   35   366   20   72   71   20   62   27   72   18   3   1   33   1   1147   8747   9207   17219   D ≥ 11   35   366   20   948   81   23   10   4   2	S ≥ 28
S ≥ 28   05   74   54   34   27   B1   51   41   74   46   12   7   4   1   102-1   711   12272   14677   17219   E ≥ 22   20   53   39   79   89   1163   33   84   31   7   5   1   62-1   1031   10799   12164   17219   E ≥ 17   234   661   20   07   17   20   62   27   72   18   3   1   33-1   1147   8747   9207   17219   E ≥ 18   25   27   28   28   28   20   15   3   1   33-1   1147   8747   9207   17219   E ≥ 21   234   235   806   25   97   806   20   20   15   3   1   33-1   1147   8747   9207   17219   E ≥ 22   25   25   25   23   31   4   2   4   4   5   4   4   5   3   4   4   5   4   4   5   4   5   4   5   4   5   5	S ≥ 28
S ≥ 28   0.5   74   54   34   27   8   5   14   74   46   12   7   4   1   102-1   711   12272   14677   17219   E ≥ 22   205   3291   79   89   11   63   33   84   31   7   5   1   62-1   1031   10799   12164   17219   E ≥ 17   224   661   207   72   72   20   62   27   72   18   3   1   33-1   1147   8747   9207   17219   E ≥ 18   22   205   661   207   48   81   23   10   4   2   1   131-1   1085   4644   4813   17219   E ≥ 27   226   661   207   48   81   23   10   4   2   1   131-1   1085   4644   4813   17219   E ≥ 28   205   38   15   22   3   1   4   2   1   1   1   1   763   2146   2182   17219   E ≥ 28   205   38   15   22   3   1   1   1   1   1   1   1   1   1	S ≥ 28
S ≥ 28   0.5   74   54   34   27   8   5   14   74   46   12   7   4   1   102-1   711   12272   14677   17219   E ≥ 22   20   53   39   79   89   11   63   33   84   31   7   5   1   62-1   1031   10799   12164   17219   E ≥ 17   224   661   20   07   71   20   62   27   72   18   3   1   33 - 1   1147   8747   9207   17219   E ≥ 18   25   27   26   661   20   72   72   20   62   27   72   18   3   1   33 - 1   1147   8747   9207   17219   E ≥ 21   224   26   26   20   20   15   3   1   33 - 1   1147   8747   9207   17219   E ≥ 22   26   661   20   48   8   23   10   4   2   1   6-1   763   2146   2182   17219   E ≥ 23   25   25   2   3   1   7   5   10   20   30   60   90   80   36   30   30   417   763   784   17219   E ≥ 24   25   38   15   22   3   1   7   5   8   19   8   5   4   2   1   23   1-1   75   6348   17068   17218   E ≥ 48   2   2   1   2   8   1   7   5   8   19   8   5   4   2   1   23   1-1   75   6348   17068   17218   E ≥ 28   3667   78   67   77   19   70   48   90   38   12   4   3   138   2   3   3   2   2   3   39   1208   1208   13595   17218   E ≥ 22   24   15   23   39   62   27   25   13   38   23   2   2   39   10   17   10   10   10   10   10   10	S ≥ 28
S ≥ 28   0.5   74   54   34   \$2   Bi   51   41   74   46   12   7   4   1   102-1   711   12272   14677   17219   E ≥ 22   20.5   3.29   179   89   1163   33   84   31   7   5   1   62-1   1031   10799   12164   17219   E ≥ 17   224   664   20   07   17   20   62   27   72   18   3   1   33-1   1147   8747   9207   17219   E ≥ 18   25   25   25   25   20   25   3   1   3   1   33-1   1147   8747   9207   17219   E ≥ 22   20.5   664   20   48   81   23   10   4   2	S ≥ 28
S = 28   05   74   54   34   27   81   51   41   74   46   12   7   4   1   102-1   711   12272   14677   17219   E = 22   22   23   32   34   34   27   83   11   63   33   84   31   7   5   1   62-1   1031   10799   12164   17219   E = 217   234   661   207   72   72   20   20   27   72   18   3   1   33   31   31   1147   8747   9207   17219   D = 11   354   3661   209   80   66   30   20   15   3	S ≥ 28
S ≥ 28   0.5   74   54   34   27   B1   51   41   74   46   12   7   4   1   102-1   711   12272   14677   17219   E ≥ 22   20513   39   179   89   1163   33   84   31   7   5   1   62-1   1031   10799   12164   17219   E ≥ 17   204   661   2010   72   17   2062   27   72   18   3   1   33 - 1   1147   8747   9207   17219   E ≥ 18   35   97   806   65   30   20   15   3	S ≥ 28
S ≥ 28   0.5 74   54   34   27   85   51   41   74   46   12   7   4   1   102-1   711   12272   14677   17219   E ≥ 22   20.5   32   91   79   89   11   63   33   84   31   7   5   1   62-1   1031   10799   12164   17219   E ≥ 17   20.5   66   20   72   17   20   62   27   72   18   3   1   33 -1   1147   8747   9207   17219   E ≥ 18   20.5   66   20   78   20   20   27   72   18   3   1   33 -1   1147   8747   9207   17219   E ≥ 21   20.5   66   20   948   81   23   10   4   2   1   10   1085   4644   4813   17219   E ≥ 22   20.5   66   20   948   81   23   10   4   2   1   1085   4644   4813   17219   E ≥ 4   20.5   20.5   20.5   20.5   20.5   20.5   20.5   20.5   20.5   20.5   20.5   20.5   E ≥ 22   20.5   20.5   20.5   20.5   20.5   20.5   20.5   20.5   20.5   20.5   20.5   E ≥ 4   20.5   20.5   20.5   20.5   20.5   20.5   20.5   20.5   20.5   E ≥ 4   20.5   20.5   20.5   20.5   20.5   20.5   20.5   20.5   20.5   E ≥ 20   365   78   67   77   19   70   40   90   38   12   4   3   10.5   20	S ≥ 28

II-5U9	2 59.2N 145.7W
1 58.5N 151.6W ₩≥64 4333	₩≥64 4333
A≥48 1 2 12-2 3 5 5 4333	Ŷ≥48 i   6-1 1 1 4333
E s 34 4 2 7 2 2 2 3 36-2 19 59 59 4333	E ≥ 34 3 4 3 2 3 1 36-1 16 49 49 49333
H ≥ 28 5 9 8 8 6 5 4 1 1 1 1 1 72-1 49 206 207 4333	H ≥ 28 8 8 7 2 5 5 2 3 2 5 5 4 2 164 165 4333 F ≠ 20 25 8 7 10 4 6 6 5 6 3 4 2 1 2 2 8 138 - 1 99 606 627 4333
E ± 20 18 15 10 15 7 8 8 6 6 5 5 4 3 1 3 2 4 126-1 114 662 678 4334	E ± 20   25   8   7   10   4   6   6   5   6   3   4   2   1   2   2   8   138 - 1   99   606   627   4333   1 ≥ 16   39   12   6   9   12   13   6   6   5   2   2   4   5   5   2   17   270 - 1   145   1055   1080   4347
6 7 7 1200 1230	G = 12 32 18 11 10 9 16 7 5 10 8 3 5 4 4 4 36 402-1 182 1784 1826 4353
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	T≥ 9 33 18 9 7 9 8 5 8 10 6 7 4 9 1 3 53 552-2 190 2389 2524 4367
≥ 6 26 17 5 9 9 8 6 4 6 6 3 2 7 3 1 59 1260-1 171 3246 3395 4367	<u>2 6 33 12 9 5 6 1 6 8 3 5 4 3 5 2 63 1290 1 165 3166 3316 4390</u>
2 3 5 3 3 7 1 1 2 4 2 6 1 49 1974-1 84 3830 4286 4529	t ≥ 3 4 7 3 2 1 1 1 2 4 1 2 3 1 49 1956-1 81 3927 4515 4781
6 12 18 24 30 36 42 48 54 60 66 72 78 d4 90 96+ MAX TE T T= TH	6 12 18 24 30 36 42 48 54 60 66 72 78 44 90 96+ MAX TE T THE HOURS DURATION OF EVENTS
HOURS DURATION OF EVENTS 54.4N 158.1W	4 30.2N 147.2W
₩≥64 4333	W≥64 A≥48 1 2 12-2 3 5 5 4333
<sup>0</sup> √≥48 2 2 1 1 1 30−1 6 15 15 4333 F ≥ 34 8 10 5 8 4 1 1 1 1 78−1 38 123 123 4333	V=70 - 12 - 12 - 12 - 12 - 12 - 12 - 12 - 1
	E ≥ 34   4   4   5   4   5   1   48-1   23   76   77   4333   28   11   8   9   9   10   5   4   5   1   1   72-1   63   260   261   4333
H ≥ 28   15   10   8   14   11   12   5     3   2   1     1	E ≥ 20   13   19   13   14   7   7   9   7   6   6   6   3   5   2   1   13   138 - 1   131   904   923   4351
1 ± 16 23 24 16 6 10 10 11 15 9 11 4 6 8 3 3 32 216-1 191 1649 1667 4372	<u>1 ≥ 16 19 16 14 16 10 12 12 10 5 7 6 5 3 3 3 32 264-1 173 1515 1543 4357</u>
G ≥ 12 22 25 6 7 18 14 11 4 9 9 6 10 2 3 10 59 468 -1 215 2485 2537 4382	H≥ 12 28 21 13 16 11 9 13 12 7 8 3 6 1 9 4 49 468-1 210 2308 2393 4351
$T \ge 9$ 21 10 13 13 9 6 7 5 3 5 2 3 4 3 6 80 492-1 190 3269 3364 4456	T≥ 9 13 8 13 13 4 4 7 10 8 7 5 2 8 6 66 684-1 174 2979 3232 4358
<u>2 6 12 6 2 3 4 7 4 3 3 4 2 2 3 1 61 1566-1 117 3907 4157 4626</u>	1 = 0 7 2 3 4007 4007 4007 4007
3 1 3 1 1 1 25 SEA-3 31 4036 5094 5145	t ≥ 3 1   1   23   SEA-4   25   3/45   480/   486/   6   12   18   24   30   36   42   48   54   60   66   72   78   74   76   76   76   76   76   76   76
6 12 18 24 30 36 42 48 54 50 66 72 78 84 90 96+ MAX TE T THE HOURS DURATION OF EVENTS 5 56.8N 141.9W	HOURS DURATION OF EVENTS 50.9N 145 7W
30.00 (41.34	₩≥64 4333
W ≥ 64 A ≥ 48 2 1 1 12-1 3 4 4 4333	A≥48 2 6-2 2 2 4333
E ± 34 10 4 9 4 3 2 36-2 32 88 89 4333	E ≥ 34 12 13 10 5 4 2 36-2 46 120 121 4333
≥ 28 7 4 4 11 11 1 10 3 1 2 1 1 96-1 55 271 286 4333	H ≥ 28   13   11   14   13   15   8   3   4   2   1   1   1   1   84 - 1   87   370   381   4333
E ≥ 20 B 7 12 12 5 9 7 16 12 4 7 2 2 1 4 12 180-1 120 938 959 4349	[ ≥ 20   25   13   14   15   10   14   13   6   11   7   6   4   5   3   2   18   198 - 1   166     1203     1225   4348   1 ≥ 16   193   16   12   12   10   13   7   7   10   9   9   4   4   7   3   40   432 - 1   192   1979   2007   4363
1 ≥ 16 19 10 10 7 13 11 12 10 7 5 3 7 6 5 5 31 192-1 161 1534 1565 4354	9 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
$\begin{array}{c} G \\ H \ge 12 \end{array} \begin{array}{c} 12 \end{array} \begin{array}{c} 12 \end{array} \begin{array}{c} 18 \end{array} \begin{array}{c} 11 \end{array} \begin{array}{c} 10 \end{array} \begin{array}{c} 10 \end{array} \begin{array}{c} 7 \end{array} \begin{array}{c} 7 \end{array} \begin{array}{c} 4 \end{array} \begin{array}{c} 10 \end{array} \begin{array}{c} 8 \end{array} \begin{array}{c} 8 \end{array} \begin{array}{c} 8 \end{array} \begin{array}{c} 8 \end{array} \begin{array}{c} 1 \end{array} \begin{array}{c} 2 \end{array} \begin{array}{c} 49 \end{array} \begin{array}{c} 504 - 1 \end{array} \begin{array}{c} 180 \end{array} \begin{array}{c} 2325 \end{array} \begin{array}{c} 2446 \end{array} \begin{array}{c} 4351 \end{array} \\ \begin{array}{c} 7 \end{array} \begin{array}{c} 435 \end{array} \begin{array}{c} 10 \end{array} \begin{array}$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	≥ 6 5 3 2 1 1 2 1 2 1 4 1 47 1548-1 70 3913 4418 4753
3 1 2 1 1 28 SEA-2 33 3710 4762 4884	1 3 1 1 1 1 1 18 SEA-4 22 3922 5210 5277
6 12 18 24 30 36 42 48 54 60 66 72 78 d4 90 96+ MAX TE T Te TH	6 12 18 24 30 36 42 48 54 60 66 72 78 d4 90 96+ MAX TE T TH HOURS DURATION OF EVENTS
HOURS DURATION OF EVENTS 51.7N 135.7W	8 49.0N 128.4W
W≥64 1 12-1 1 2 2 4333	₩ ≥ 64 4333 12-1 1 2 2 4333
<sup>A</sup> ≥48 2 1 1 1 24-1 4 8 8 4333	V-10
E ≥ 34 11 10 4 4 3 4 2 4333 ≥ 28 14 12 7 19 3 6 3 5 2 2 1 66-1 74 296 298 4333	E ≥ 34 9 4 5 3 1 1 1 42-1 23 56 56 4333 ≥ 28 9 15 9 1 8 3 1 1 2 1 102-1 50 185 185 4333
≥ 28   14   12   7   19   3   6   3   5   2   2   1	$C \triangleq 20    17    20    11    16    13    15    7    6    8    2    5    6    1    3    3    5    144 - 1    138    820    622    4333 $
£ 16 14 12 10 8 10 13 15 7 5 4 8 9 5 5 3 37 270-1 165 1779 1813 4356	1 ≥ 16 16 9 13 12 9 14 15 3 6 8 4 11 3 1 30 300 - 1 154 1448 1464 4339
S≥ 12 19 16 8 9 12 8 3 4 7 1 8 3 9 5 6 55 498-1 173 2624 2690 4387	G H ≥ 12 13 11 7 5 6 10 9 9 8 7 6 2 5 7 4 50 420-1 159 2274 2334 4378
T≥ 9 1 3 6 8 3 7 7 3 6 4 7 4 5 5 4 65 630-1 147 3204 3359 4455	T≥ 9 13 13 8 5 6 7 5 3 4 4 2 2 1 2 69 504-1 144 2921 3019 4447
. ≥ 6 9 5 4 2 1 3 2 2 1 2 2 3 2 3 56 1038-1 97 3791 4109 4618	≥ 6 14 11 7 7 3 4 3 1 4 3 2 1 1 3 61 900 - 1 125 3697 3902 4654 ≥ 3 2 6 3 1 1 1 3 1 1 4 1 34 1716 - 1 57 4086 4825 5078
1 2 3 3 3 1 1 1 1 1 1 1 1 1 31 1902-1 43 4060 5213 5334	$t \ge 3$ 2 6 3 1 1 3 1 1 4 1 34 1716-1 57 4086 4825 5078 1 6 12 18 24 30 36 42 48 54 40 66 72 78 44 90 96 + MAX TC T TAIL THE
HOURS DURATION OF EVENTS	HOURS DURATION OF EVENTS 45.6N 144.2W
9 46.3N 156.0W	₩ <sub>≧</sub> 64 4332
W≥64 A≥46 1 1 2 5 6 4332	A ≥ 48 2 1 12-1 3 4 6 4332 1
F ± 34 9 5 7 4 3 i 1 42-1 30 84 89 4332	E ±34 9 11 6 2 3 1 42-1 32 84 89 4332
1 ≥ 28 27 26 9 13 9 4 5 3 1 2 1 1 1 90 - 1 102 353 367 4332	H ≥ 28 12 12 16 13 8 4 7 1 4 1 66-1 78 304 311 4332
r ≥ 20 33 26 21 17 16 20 11 10 11 8 11 7 5 1 2 12 174-1 211 1317 1347 4362	$\varepsilon \ge 20$ 27 16 25 18 16 17 8 10 10 6 5 4 3 3 5 9 252 1 182 1 44 183 4340
1 2 16 18 33 11 21 14 15 13 10 9 6 10 13 5 9 4 38 330-1 229 2112 2181 4371 3 2 12 16 10 15 8 13 8 8 7 4 5 6 6 7 3 4 71 450-1 191 3025 3144 4457	r = 10 E 1 = 10   1 =
	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$
	≥ 6 3 3 2 1 1 2 1 2 2 1 1 42 SEA-1 61 3968 4635 4903
. ≥ 6 7 4 1 3 1 2 2 2 1 1 46 1986 - 1 71 3737 4646 4901 . ≥ 3 1 1 15 SEA - 6 16 3386 4841 4859	≥ 3 1 1 1 1 1 16 SEA-2 19 3207 4790 4833
6 12 18 24 30 36 42 48 54 60 66 72 78 84 90 96 MAX TE T T= TH	6 12 18 24 30 36 42 48 54 50 66 72 78 d4 90 96+ MAX TE T T= TH HOURS DURATION OF EVENTS
HOURS DURATION OF EVENTS 11 46.3N 135.2W	12 46.3N 126.4W
#≥64 4333	W≥64 4333
2 48 2 1 1 18 -1 3 5 5 4333	Ŷ≥48 4333 V≥48 4333
F = 34 10 3 5 2 1 2 1 48-1 24 66 66 4333	E 2 3 4 5 3 1 1 1 1 1 42-1 11 25 25 4333 2 2 8 1 1 3 5 6 2 1 1 1 1 1 5 5 4-1 31 96 96 4333
\$\frac{228}{6} \frac{14}{10} \frac{13}{10} \frac{10}{8} \frac{4}{4} \frac{2}{2} \frac{1}{1} \frac{1}{1} \frac{108}{1} \frac{164}{226} \frac{226}{226} \frac{226}{4333} \frac{233}{6} \frac{2}{226} \frac{211}{226} \frac{1}{226} \frac{1}{226} \frac{226}{226} \frac{4333}{233} \frac{1}{226} \frac{2}{226} \frac{226}{226} \frac{233}{233} \frac{1}{226} \frac{2}{226} \frac{226}{233} \frac{2}{236} \frac{2}{236} \frac{2}{236} \frac{2}{233} \frac{2}{236} \frac{2}{236} \frac{2}{236} \frac{2}{236} \frac{2}{236} \frac{2}{233} \frac{2}{236} \frac{2}{236} \frac{2}{236} \frac{2}{236} \frac{2}{233} \frac{2}{236} \fra	H ≥ 28     11     3     5     6     2     1     1     1     1     1     54-1     31     96     96     4333       E ≥ 20     19     19     13     6     12     7     7     4     2     5     2     2     1     1     4     120-1     104     517     521     4333
f ≥ 20     21     17     9     17     7     19     11     9     8     7     3     5     3     4     2     8     132-1     150     956     962     4333       ≥ 16     17     19     18     10     9     9     6     7     9     5     6     6     4     31     312-1     174     1706     1723     4342	1 ± 16 29 24 10 11 10 7 10 8 5 7 1 5 4 3 2 16 234-1 152 1075 1083 4345
2 12 13 10 14 13 11 7 9 5 11 3 8 5 8 4 7 50 438 -1 178 2602 2666 4374	$G_{H} \ge 12$ 26 16 4 10 15 6 7 8 10 10 4 5 3 3 2 42 432-1 171 1970 2007 4365
T ≥ 9 14 4 7 7 4 3 6 3 4 4 4 1 3 2 3 62 672-1 131 3215 3459 4475	T≥ 9 21 11 10 7 8 2 6 2 7 4 8 5 4 5 6 60 600-1 166 2706 2786 4396
≥ 6 9 4 2 1 6 1 1 1 6 1 1 1 3 2 49 1740-1 88 3657 4169 4628	<u>18 9 6 10 2 6 3 4 3 2 3 3 1 3 3 62 780-1 138 3418 3559 4462</u>
2 1 3 2 1 3 2 1 1 24 SEA-2 33 4053 5142 5257	$\frac{1}{2} \ge 3 \begin{bmatrix} 7 & 4 & 2 & 2 & 2 & 3 & 2 & 3 & 1 & 2 & 1 & 1 & 2 & 39 & 1878 - 1 & 68 & 4099 & 4642 & 4902 \\ 6 & 12 & 18 & 24 & 30 & 36 & 42 & 48 & 54 & 60 & 66 & 72 & 78 & 84 & 90 & 96 & MAX & TE & T & Te & TH$
6 12 18 24 30 36 A2 48 54 60 66 72 78 H4 90 96+ MAX TE T TO THE HOURS DURATION OF EVENTS	6 12 18 24 30 36 42 48 54 60 66 72 78 84 90 96+ MAX TE T TO THE HOURS DURATION OF EVENTS
<b>↓</b>	23 Persistence of wave height-duration
(Winter	43 raisistanca of Mara Halfittanation

23 Persistence of wave height-duration

1 58.5N 151.6W	2 59.2N 145.7W
₩≩64 8 SEA-8 8 2944 4389 4389	W≥64 B SEA-8 B 2944 4389 4389
V≥48 1 1 9 SEA-7 10 3185 4745 4750	A≥48 9 SEA-8 9 3243 4689 4689
E ≥ 34   1   24   SEA-8   26   4589   5460   5519	E ≥ 34 1 1 20 SEA-7 22 4273 5716 5765
H ≥ 28 2 1 1 2 1 1 1 2 1 1 1 42 SEA-4 55 4528 5387 5594	H ≥ 28 1 1 1 1 1 1 1 1 1 38 SEA-4 47 4333 5470 5635
E ≥ 20 6 12 6 2 3 7 5 3 2 2 2 1 3 67 978 -1 121 3697 4084 4761	E ±20 7 7 2 3 2 2 2 3 2 5 1 3 2 1 2 61 SEA-2 105 4154 4562 5189
G ≥ 16 11 8 7 7 10 12 5 4 2 4 2 1 2 8 2 8 5 906-1 150 3123 3421 4588 G ≥ 12 23 6 10 15 11 17 10 8 7 9 4 6 4 3 6 51 684-1 190 2546 2601 4478	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$
T≥ 9 27 18 18 21 9 8 9 4 7 9 6 4 6 5 4 34 384-1 189 1802 1822 4412	$\frac{1}{1}$ ≥ 12   27   6   12   12   9   7   10   9   4   8   4   5   2   3   7   58   420-1   183   2590   2670   $^{4}$ 476   $^{4}$
2 6 39 17 17 14 24 10 11 6 2 2 7 2 3 5 11 192-1 170 978 990 4351	≥ 6 39 18 16 19 11 7 6 4 7 5 2 6 3 4 3 15 288 -1 165 1076 1083 4342
(≥ 3 22 21 15 6 1 6 2 3 1 1 84-1 77 237 243 4333	t ≥ 3 22 13 9 10 8 6 1 2 1 1 1 1 180 - 1 74 264 267 4334
6 12 18 24 30 36 42 48 54 60 66 72 78 14 90 96+ MAX TI T TE TH	6 12 18 24 30 36 42 48 54 60 65 72 78 d4 90 96+ MAX TI T TA TH
HOURS INTERVAL BETWEEN EVENTS 3 54,4N 158.1W	HOURS INTERVAL BETWEEN EVENTS 4 56.2N 147.5W
₩≥64	₩≥64 B SEA-8 B 2944 4389 4389
V≥48 1 12 SEA-7 13 3610 5171 5186	A≥48 1 1 10 SEA-8 11 3439 4884 4889
E ≥ 34	E ≥ 34 1 1 1 1 22 SEA-5 27 3970 5935 6012
H ≥ 28 3 2 5 4 1 1 3 1 1 1 2 4 1 2 2 55 1512-1 88 4066 4725 5074	H ≥ 28 4 3 2 1 1 1 3 2 1 1 51 SEA-3 70 4786 5317 5578
[ ≥ 20   12   14   7   7   8   8   4   7   7   3   1   3   3   3   71   738 - 1   161   3322   3475   4510	£ ≥ 20   14   3   7   3   5   8   4   4   5   2   5   1   4   2   65   1032 - 1   132   3597   3870   4775
G ≥ 16 25 16 11 8 12 10 8 6 7 6 9 5 4 4 4 60 450-1 195 2742 2801 4429 G ≥ 12 29 22 31 16 15 9 11 9 10 10 5 4 6 1 4 30 396-1 212 1828 1865 4353	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$
H ≥ 12 29 22 31 16 15 9 11 9 10 10 5 4 6 1 4 30 396-1 212 1828 1865 4353 T≥ 9 38 30 25 15 12 13 14 4 4 6 3 1 4 2 1 12 276-1 184 1068 1093 4334	$\begin{array}{llllllllllllllllllllllllllllllllllll$
. ≥ 6 23 24 15 13 8 7 5 3 3 2 1 2 3 1 180 - 1 109 456 470 4334	≥ 6 21 15 12 11 6 3 2 5 2 4
$\frac{1}{1} \ge \frac{3}{11} = \frac{1}{7} = \frac{1}{11} = $	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$
6 .2 18 24 30 36 42 48 54 60 66 72 78 H4 90 95+ MAX TI T To TH	6 12 18 24 30 36 42 48 54 60 66 72 78 H4 90 96+ MAX TI T TH TH
HOURS INTERVAL BETWEEN EVENTS 5 56.8N 141.9W	HOURS INTERVAL BETWEEN EVENTS 6 50.9N 145.7W
W≥64 8 SEA-8 8 2944 4389 4389	W≥64
A ≥ 48 1 1 10 SEA-8 11 3234 4482 4486	A≥48 10 SEA-9 10 3396 4704 4706
E ≥ 34 1 1 1 1 33 SEA-5 37 4133 5630 5719	E ≥ 34 2 4 1 2 2 1 1 40 SEA-7 53 4917 6267 6388
H ≥ 28 1 1 2 4 1 1 1 2 1 47 SEA-5 61 4919 6041 6327	H ≥ 28 8 4 3 2 1 2 3 4 2 1 4 3 2 1 56 SEA-3 96 4365 4725 5:06
□ ≥ 20	E ≥ 20 19 17 7 9 8 6 4 5 2 7 7 6 3 1 4 64 10 14 - 1 169 3317 3452 4662
$\leq 16$ 12 6 13 6 2 14 10 5 7 6 4 2 1 2 71 672-1 161 2914 2996 4540 $\subseteq \geq 12$ 17 17 16 11 17 12 7 8 6 5 6 7 1 3 6 44 390-1 183 1981 2005 4433	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$
$rac{7}{6} \ge 12$   17   17   16   1   17   12   7   8   6   5   6   7   1   3   6   44   390 - 1   183   1981   2005   4433   1 \geq 9   25   23   20   14   6   13   6   8   3   5   5   4   6   2   1   21   318 - 1   162   1203   1213   4366	$\frac{1}{16}$ ≥ 12 $\frac{116}{18}$ 21 $\frac{114}{13}$ 8 $\frac{12}{9}$ 7 5 5 2 7 3 2 3 30 384-1 159 1555 1584 4378 $\frac{1}{16}$ ≥ 9 20 17 15 18 10 10 5 4 9 5 3 6 2 11 354-1 135 927 929 4356
<u>2</u> 6 20 15 i0 i4 5 5 4 2 3 3 1 2 2 1 6 132-1 93 490 491 4339	≥ 6 17 14 10 5 i 2 3 5 2 5 288 -1 64 336 337 4335
$t \ge 3   10   4   2   1   2   2   1   2   1            $	t ≥ 3 5 i 3 i 1 i 1 1 1 1 1 102-1 15 67 68 4334
6 .2 16 24 30 36 42 46 54 60 66 72 78 44 90 96+ MAX TI T Te TH	6 .2 18 24 30 36 42 48 54 60 66 72 78 44 90 96+ MAX TI T T+ TH
HOURS INTERVAL BETWEEN EVENTS 7 51.7N 135.7W	HOURS INTERVAL BETWEEN EVENTS  8 49.0N 128.4W
W≥64	₩≥64 8 SEA-8 8 2944 4389 4389
V≥46 12 SEA-8 12 3356 4801 4809	A≥48 9 SEA-8 9 3021 446€ 446€
E ≥ 34 2 1 1 1 1 1 3 33 SEA-5 43 4404 6048 6160	E ≥ 34 2 1 1 1 1 1 21 SEA-6 28 3744 5504 5560
H ≧ 28 6     2 1 1 2 3 3   2 1 1 1 55 SEA-2 79 4527 5607 5905	H ≥ 28 3 2 2 2 2 2 1 1 3 1 37 SEA-4 56 4554 5784 5969
E ≥ 20   18   10   14   10   5   6   2   14   4   4   6   4   5   1   5   62   1692 - 1   170   3558   3669   4785	[ ≥ 20 6   14   8   6   2   12   8   i   5   6   3   2   3   i   2   64   SEA-2   143   4227   4690   55   2
G   16 20 12 9 12 10 10 6 5 7 7 2 1 4 1 8 54 1188 - 1 168 2671 2742 4532	1 2 16 15 9 8 10 7 3 9 9 1 7 4 3 5 5 64 SEA-1 159 3469 3552 50:0
$\stackrel{\frown}{H} \ge 12 \ 20 \ 23 \ 17 \ 10 \ 9 \ 12 \ 3 \ 6 \ 7 \ 5 \ 5 \ 5 \ 7 \ 1 \ 5 \ 35 \ 1032 - 1 \ 170 \ 1792 \ 1815 \ 4451$	$H \ge 12 \ 23 \ 9 \ 13 \ 14 \ 10 \ 10 \ 9 \ 6 \ 2 \ 9 \ 3 \ 1 \ 3 \ 6 \ 44 \ 1164 - 1 \ 162 \ 2236 \ 2266 \ 4555$ $T \ge 9 \ 25 \ 12 \ 18 \ 10 \ 8 \ 7 \ 5 \ 8 \ 4 \ 1 \ 2 \ 3 \ 3 \ 1 \ 3 \ 15 \ 34 - 1 \ 143 \ 1429 \ 1440 \ 1 \ 4345$
$T \ge 9 \   18 \   15 \   21 \   10 \   11 \   14 \   2 \   4 \   8 \   6 \   5 \   3 \   4 \   3 \   19 \   222 - 1 \   143 \   1098 \   i104 \   4341 \  $ $\ge 6 \   17 \   16 \   15 \   6 \   5 \   7 \   5 \   2 \   3 \   1 \   1 \   1 \   2 \   8 \   180 - 1 \   90 \   508 \   509 \   4333 \  $	
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$
6 12 18 24 30 76 42 48 54 60 66 72 78 84 90 96+ MAX TI T To TH	6 :2 18 24 30 36 42 48 54 60 66 72 78 44 90 96+ MAX TI Y To TH
HOURS INTERVAL BETWEEN EVENTS 9 46.3N 156.0W	HOURS INTERVAL BETWEEN EVENTS 10 45 6N 144.2W
W≥64 7 SEA-7 7 2576 4380 4380	W≥64 7 SEA-7 7 25/6 4380 4380
A ≥ 48 i 9 SEA-8 i0 3023 4550 4556	A ≥ 48 1 1 11 SEA-9 12 3596 4699 4705
E ≥ 34 3 i 2 1 1 1 30 SEA-7 38 4792 5725 58 i4	E ≥ 34 1 2 2 2 1 1 1 1 28 SEA-8 38 4694 6284 6373
H ≥ 28 6 3 6 7 2 2 3 3 3 6 2 3 2 4 1 56 SEA-4 109 4615 5361 5728	H ≥ 28 2 4 2 5 4 1 3 2 1 5 3 1 1 52 SEA-5 86 4846 5603 5914
€ 20     18     23     22     14     14     12     6     12     8     9     3     5     5     2     4     58     954-1     215     3040     3178     4495	E ≥ 20 17 15 13 12 14 10 3 11 9 5 4 2 2 3 5 62 SEA-1 187 3673 3837 50 2
G ≥ 16 29 33 27 15 12 15 11 9 11 4 9 5 10 5 3 35 942-1 233 2273 2337 4479	1 ≥ 16 24 23 15 10 8 7 8 6 9 2 7 2 4 2 2 55 834-1 184 2502 2602 4508
$\frac{1}{6} \ge 12 \frac{ 37 40}{ 7 15} \frac{ 15 12}{ 15 12} \frac{ 6 11 4}{ 10 6} \frac{ 7 6}{ 7 6} \frac{ 2 1}{ 17 348} - \frac{191}{ 191 } \frac{1264}{ 1264 } \frac{1319}{ 1319 } \frac{4338}{ 191 }$	H≥ 12 21 16 17 14 15 12 12 3 4 6 6 6 3 4 3 4 26 480-1 166 1552 1583 4432
$T \ge 9 \   \   \   \   \   \   \   \   \   \$	$T \ge 9 \ 21 \ 18 \ 14 \ 12 \ 5 \ 8 \ 7 \ 4 \ 4 \ 7 \ 2 \ 5 \ 1 \ 5 \ 1 \ 9 \ 288 - 1 \ 123 \ 853 \ 866 \ 4383$ $\ge 6 \ 13 \ 9 \ 7 \ 6 \ 5 \ 4 \ 3 \ 2 \ 1 \ 2 \ 1 \ 1 \              $
≥ 6     19.5     5     6     8     5     4     1     1     1     1     1     90-1     68     257     257     4334       t ≥ 3     4     5     1 <t< td=""><td><math display="block"> \begin{array}{c ccccccccccccccccccccccccccccccccccc</math></td></t<>	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$
1 4 3 14 3 15 4 5 6 6 6 72 78 d4 90 96+ MAX TI T TO TH	$t \le 3$ 0   1   1   4   1     42   43   4332   6   12   18   24   30   36   42   48   54   60   66   72   78   64   90   96 + MAX   T    T   Th   Th
HOURS INTERVAL BETWEEN EVENTS 11 46.3N 135.2W	HOURS INTERVAL BETWEEN EVENTS
W≥64 B SEA-8 B 2944 4389 4389	12 46.3N 126.4W ₩≥64 8 SEA-8 8 2944 4389 4389
V≥48 11 SEA-8 i1 3330 4571 4576	V≥48 8 SEA-8 8 2944 4389 4369
E = 34   1   1   1   27   SEA - B   31   4565   5661   5727	E ≥ 34 1 1 15 SEA-6 17 3570 5375 5400
H ≥ 28 3 3 3 2 2 1 3 1 2 1 1 1 47 SEA-5 69 4913 6361 6587	H≥28 1 1 1 1 1 2 1 1 2 29 SEA-5 37 4094 5670 5766
T ≤ 20 13 14 11 9 7 4 10 2 5 4 2 4 4 4 3 62 810-1 158 3308 3686 4648	C ≥ 20 5 11 9 3 8 3 2 2 2 4 3 3 3 50 SEA-3 11 4309 5235 5756
1 ≥ 16 19 15 10 9 8 13 14 7 3 7 4 3 1 2 2 61 936-1 178 2652 2746 4460	1 ≥ 16 18 13 10 5 6 3 8 7 4 2 4 6 1 3 3 62 SEA-3 155 4313 4536 5607
$\frac{1}{2}$ \geq 2 \( \frac{12}{25} \) \( \frac{21}{19} \) \( \frac{15}{11} \) \( \frac{13}{5} \) \( \frac{6}{7} \) \( \frac{7}{2} \) \( \frac{5}{3} \) \( \frac{4}{2} \) \( \frac{1}{39} \) \( \frac{852-1}{178} \) \( \frac{1741}{1741} \) \( \frac{1765}{1745} \) \( \frac{4390}{4390} \)	G ≥ 12 15 13 12 13 10 10 9 6 9 6 2 2 5 4 1 54 516-1 171 2515 2592 4567
T ≥ 9 20 15 i7 14 8 5 6 5 3 2 6 4 5 1 2 18 534-1 131 1035 1036 4353	T ≥ 9 26 15 17 8 15 8 7 6 6 2 6 1 1 5 2 39 276-1 164 1615 1670 4393
2 1 15 6 9 7 6 2 4 2 3 1 1 2 7 162-1 86 468 469 4343	≥ 6 22 25 16 13 11 5 1 2 7 4 3 1 3 2 1 18 210-2 134 907 911 4341
t ≥ 3	$\frac{1}{2}$ 3 15 8 13 8 5 6 3 1 1 1 2 1 1 102-1 64 263 264 4337
HOURS INTERVAL BETWEEN EVENTS	HOURS INTERVAL BETWEEN EVENTS
22 Perciatores of wave height-interval	Winte

- 1									1	l						5	8.5N	151.6W										2	_	_					5	9.2N
				$\perp$				I	T	$\Box$	П		$\perp$					4241	₩ <u>≥</u> 64			I						I	I		$\Box$			$\Box$		
				$\Box$	Ι	$\Box$		$\perp$	I		П	$\Box$						4241	<b>^</b> 2≥48			I			L	$\Box$			$\perp$	L	L			<u> </u>		
	1		1	$\perp$			Ц	$\perp$	L	L		$\perp$		18-1	2	4	4	4241	E ≧ 34		$\perp$	1				L			$\perp$	_	1_	Ļ.		<b>.</b>		
	3	$\overline{}$	1	_	_		Ц	$\bot$	_	╙	$\sqcup$	$\rightarrow$	_	30-2	10	28	28	4241	<sub>H</sub> ≧ 28		2 1	<u> </u>		_		1	1	_		<u> </u>	<u> </u>	<u> </u>	30-1	7	21	21
	5		2	_		3	$\rightarrow$	1 2	-	$\vdash$	+	$\rightarrow$	$\perp$	60-2	31	137	137	4241	E ≩ 20		5 2	-		-	2 3	$\perp$	Ļ	$\rightarrow$	_	<b> </b>	-	₩	48-3	25	113	113
	6	$\rightarrow$	12	_			$\rightarrow$	5 2	_	2	╁┼	1	4.	84 – 1	63	325	327	4241	l ≥ 16 G		8 6	_		$\rightarrow$	5 4	_	3	_	1	1	-	1-	96-1	59	298	298
	9		_	4 6	-	10	$\rightarrow$	6 7	$\rightarrow$	1_		_	2 4	138-1	115	742	752	4241	H ≥ 12		1 8	-	-	$\rightarrow$	8 8	-		<del>-</del> +	1 1	2	Ļ	7	132-1	102	711	712
	19	_ :	-	2 10		6	_	8 1		_	3	<del>-</del>	4 19	264-1	138	1189	1207	4241	T≩ 9	-	6 9	-		10	_	-+	-		5 5	4	₩-	20	246-1	142	1283	1299
	_	_	_	0 10					7 6				7 42	282-1	171	1870	1954	4241	f ≥ 6	$\rightarrow$	13 4	_	$\rightarrow$	_	5 1	-	-		8 8	2	5	42	606-1	150	2840	
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₩ ≥ 64 6 SEA - 6 6 2208 4265 4265	W≥64 6 SEA-6 6 .208 4265 4265 A≥48 6 SEA-6 6 .208 4265 4265
V≥48 6 SEA-6 6 2208 4265 4265	V
E ≥ 34 8 SEA-6 8 2301 4310 4314 ≥ 28 16 SEA-6 16 3124 4702 4730	
H ≥ 28	H ≥ 28
1 ± 16 2 1 1 1 5 1 2 1 2 2 1 3 1 43 SEA-6 66 4917 5741 6068	≥ 16   1   1   5   2   2   2   3   1   1   40   SEA - 6   60   4330   5330   5628
$G \stackrel{?}{=} 12 \stackrel{?}{/} 6 \stackrel{?}{=} 2 \stackrel{?}{=} 0 \stackrel{?}{=} 2 \stackrel{?}{=} 3 \stackrel$	G≥12 6 5 4 7 5 4 3 3 2 3 3 1 3 1 3 512190-1 104 4215 4868 5580
T ≥ 9 13 5 7 7 7 4 3 5 3 8 3 7 6 4 9 52 1944-1 143 3860 4089 5296	T ≥ 9 15 9 9 4 9 5 2 9 4 4 4 3 8 3   57 1 J 74 - 1 145   3790   3986   5285
£ 6 17 15 11 6 10 9 10 16 9 11 4 2 3 5 5 43 882−1 176 2734 2808 4762	≥ 6 16 7 10 9 14 6 9 7 4 7 4 1 4 6 5 44 1026-1 153 2533 2575 4646
£ 3 28 18 25 15 12 9 6 8 5 2 2 6 3 3 2 19 402-1 163 1272 1286 4407	t ≥ 3 17 13 16 11 9 10 4 6 3 6 5 3 6 3 2 17 660-1 131 1216 1221 4396
6 .2 18 24 30 36 42 48 54 60 66 72 78 H4 90 96+ MAX TI T TO TH	6 12 18 24 30 36 42 48 54 60 66 72 78 d4 90 96+ MAX TI T TO TH HOURS INTERVAL BETWEEN EVENTS
HOURS INTERVAL BETWEEN EVENTS  3 54.4N 158.1W	56.2N 147.5W
₩≥64 6 SEA-6 6 2208 4265 4265	W≥64 6 SEA-6 6 2208 4265 4265
A≥48 6 SEA-6 6 2208 4265 4265	Å≥48 6 SEA-6 6 2208 4265 4265
E ≥ 34 1 1 12 SEA-7 13 3076 4595 4615	E ≥34 7 SEA-6 7 2453 45:0 45:1
H ≥ 28 2 1 1 1 1 1 1 18 SEA-7 26 3649 4863 4947	H ≥ 28 1 1 1 18 SEA-8 20 3870 4960 500
E ≥ 20 5 3 6 4 2 2 1 3 1 1 1 2 46 SEA-3 77 4606 5435 5808	E 20 1 1 1 2 1 1 1 2 2 2 1 35 SEA-7 49 4210 5378 5618.
$  \ge 16   5   7   5   11   5   4   5   2   2   3   5   3   5   2   63   SEA-1   127   4425   4706   5421   6   2   17   14   17   8   8   7   6   7   5   6   6   3   2   3   3   5   59   1722-1   159   3465   3651   5012   3   3   3   3   3   3   3   3   3   $	
	$H \ge 12$ 11 12 8 11 7 11 8 6 8 5 2 6 1 2 54 2016-1 152 4195 4360 5550 $H \ge 9$ 14 13 13 13 8 9 6 8 8 4 5 7 4 5 1 47 1104-1 165 2906 2957 4791
	≥ 6 29 21 17 7 8 9 6 4 11 9 1 4 2 3 32 732-1 163 1707 1723 4428
≥ 6.37   28   18   12   7   14   7   7   6   4   5   5   2   2   5   23   684 - 1   182   1630   1636   434   1   2   3   19   14   14   10   5   4   4   1   2   3   5   258 - 1   8   377   394   4252	t ≥ 3 18 17 11 10 6 7 7 3 3 1 2 11 2 1 7 492-: 96 636 636 4341
6 .2 18 44 30 35 42 48 54 60 66 /2 78 d4 90 VE+ MAX TI T To TH	5 :2 18 24 30 36 42 48 54 60 56 72 76 :4 90 96+ MAY TI T 1+ TH
HOURS INTERVAL BETWEEN EVENTS 5 56.8N 141.9W	HOURS INTERVAL BETWEEN EVENTS 6 50.9N 145.7W
W≥64	W≥64 6 SEA-6 6 2208 4265 4265
A ≥ 48 6 SEA-6 6 2208 4265 4265	A ≥ 48 6 SEA-6 6 2208 4265 4265
E ≥ 34   10 SEA-7 10 2804 4471 4478	E≥34
H ≥ 2d   11 SEA-7   11   2917   4583   4603	H ≥ 28 1 1 2 1 1 1 20 SEA-7 27 3680 4928 4979
r ≥ 20 2 1 1 1 1 3 1 1 2 32 SFA-7 45 3979 5251 5451	E ≥ 20 4 1 5 4 1 5 2 1 1 2 3 2 2 1 41 SEA-6 /5 4413 5431 5804
S = 16   4   1   3   2   5   2   4   6   2   6   3   1   3   2   1   41   SEA = 2   86   3595   5317   5830	2 16 9 3 8 8 2 5 1 9 4 2 4 2 5 1 4 51 SEA-4 118 4610 4873 5643
$n \ge 12   11   8   7   8   10   7   7   7   5   4   5   2   3   6   5   5   5   4 - (   4 )   4   105   4   7   6   5   8   7   7   7   7   7   7   7   7   7$	H ≥ 12 15 11 16 18 12 14 5 4 2 4 5 7 1 4 1 54 1656-1 173 3489 3578 5773
$T \ge 9 \   \ 8 \   \ 3 \   \ 21 \   \ 7 \   \ 10 \   \ 8 \   \ 3 \   \ 7 \   \ 7 \   \ 3 \   \ 3 \   \ 1 \   \ 5 \   \ 3 \   \ 49 \   \ 159c - 1 \   \ 151 \   \ 3038 \   \ 3120 \   \ 4844$ $\ge 6 \   \ 29 \   \ 16 \   \ 15 \   \ 3 \   \ 6 \   \ 2 \   \ 7 \   \ 9 \   \ 5 \   \ 6 \   \ 5 \   \ 5 \   \ 3 \   \ 6 \   \ 1 \   \ 344 \   \ 1020 - 1 \   \ 152 \   \ 1825 \   \ 1866 \   \ 4472$	
* * * * * * * * * * * * * * * * * * *	$\geq$ 6 26 12 15 17 6 7 8 2 11 4 4 4 3 1 4 19 696-1 143 1213 1226 4423 $\geq$ 3 12 13 11 4 7 2 3 2 1 2 1 1 1 4 240-1 62 328 328 4272
t ≥ 3 26 9 7 (11) 9 4 3 2 4 6 1 1 1 1 1 15 264-1 100 693 693 4292 6 10 4 30 36 42 48 34 60 66 72 78 r4 90 96 • MAX TI T T TH	6 .2 16 24 30 16 42 46 54 60 66 72 78 d4 90 96+ MAX TI T Te Te
HOURS INTERVAL BETWEEN EVENTS 7 51.7N 135.7W	HOURS INTERVAL BETWEEN EVENTS 8 49.0N 128 4W
N≥64 6 SEA-6 6 2208 4265 4265	W≥64 6 SEA-6 6 2208 4265 4265
A ≥ 48 6 SEA-6 6 2208 4265 4265	A ≥ 48 6 SEA-6 6 2208 4265 4265
E ≥ 34 8 SEA-6 8 2404 4461 4464	E ≥ 34 6 SEA-6 6 2208 4265 4265
1 1 1 15 SEA-6 !7 3000 4807 4837	H ≥ 28 1 9 SEA-6 10 2477 4306 4318
E ≥ 20 3 1 3 3 1 4 1 1 1 2 1 1 1 32 SEA-6 55 4140 5395 5646	E ≥ 20 2 1 1 1 1 24 SEA-7 31 3761 5096 5203
1 ≥ 16 5 3 6 4 4 4 1 2 3 4 2 3 4 6 1 2 46 38A 1 95 4099 5265 5820	'≥16 4 5   2 2 3   3   1 2 2   1   31   SEA-6   56   3760   5141   5430
$\frac{G}{H} \ge 12$ 16 11 4 9 5 5 5 7 3 7 8 8 1 2 47 2058 - 1 138 $3 = 3$ 4011 5210	G <sub>H</sub> ≥12 4 3 8 3 6 3 5 8 1 3 3 3 2 1 1 45 SEA-2 99 3637 4767 5528
$T \ge 9$ 26 12 18 11 1 1 8 14 5 8 9 4 2 4 4 1 40 1476-1 177 2819 2955 4999	$^{6}$ $_{\pm}$ $^{12}$ $^{4}$ $^{3}$ $^{8}$ $^{3}$ $^{6}$ $^{3}$ $^{5}$ $^{8}$ $^{1}$ $^{3}$ $^{3}$ $^{3}$ $^{3}$ $^{2}$ $^{1}$ $^{1}$ $^{45}$ $^{5}$ $^{5}$ $^{2}$ $^{-2}$ $^{9}$ $^{3637}$ $^{4767}$ $^{5528}$ $^{12}$ $^{23}$ $^{23}$ $^{11}$ $^{10}$ $^{10}$ $^{10}$ $^{12}$ $^{2}$ $^{6}$ $^{7}$ $^{5}$ $^{2}$ $^{5}$ $^{2}$ $^{3}$ $^{5}$ $^{6}$ $^{2}$ $^{2}$ $^{54}$ $^{58}$ $^{-1}$ $^{140}$ $^{3603}$ $^{39}$ $^{18}$ $^{5428}$
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$
H 2 12 16 11 4 9 5 5 5 7 3 7 8 8 1 2 4 7 2008-1 138 3 95 5 4011 5210  T 2 9 26 12 18 11 11 8 14 5 8 9 4 2 4 4 1 40 1476-1 177 2819 2955 4999  E 6 24 19 12 12 10 10 8 3 4 2 3 6 3 4 2 27 792-1 149 1492 1540 4522  E 3 3 15 14 13 7 4 6 2 2 2 2 2 3 1 2 1 4 174-1 78 411 411 4254  H 2 18 24 30 36 42 48 56 66 67 27 78 84 9086- MAX 71 T T TO TH  H 2 18 18 18 18 18 18 18 18 18 18 18 18 18	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$
H 2 12 16 11 4 9 5 5 5 7 3 7 8 8 1 2 4 7 2088-1 138 3 95 4011 5210  T 2 9 26 12 18 11 11 8 14 5 8 8 9 4 2 4 4 1 40 1476-1 177 2819 2955 4999  2 6 24 19 12 12 10 10 8 3 4 2 3 6 3 4 2 27 792-1 149 1492 1540 4522  1 3 15 14 13 7 4 6 2 2 2 2 3 3 1 2 1 4 174-1 78 411 411 4254  HOURS INTERVAL BETWEEN EVENTS  46.3N 156.0W	G ≥ 12 4 3 8 3 6 3 5 8 1 3 3 3 2 1 1 45 SEA-2 99 3637 4767 5528.  T≥ 9 11 10 8 12 6 7 5 2 5 2 3 5 6 2 2 34 SEA-1 140 3603 3918 5428  ≥ 6 25 11 16 9 15 7 4 3 10 5 2 1 6 4 5 35 1212-1 158 1872 1930 4599  ≥ 3 22 8 8 4 7 6 1 1 2 5 2 2 1 1 1 1 3 8 144-2 81 499 499 4262  HOURS INTERVAL BETWEEN EVENTS  14 2 8 1 4 4 3 0 36 42 48 54 60 66 72 78 34 90 96 4 MAX T 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7
H ≥ 12   16   11   4   9   5   5   5   7   3   7   8   8   1   2   4   7   208 - 1   138   3   3   5   5   1   5   10   10   10   10   1	G ≥ 12 4 3 8 3 6 3 5 8 1 3 3 3 2 1 1 45 SEA-2 99 3637 4767 5528.  T≥ 9 11 10 8 12 6 7 5 2 5 2 3 5 6 2 2 54 SEA-1 140 3603 39·8 5428  ≥ 6 25 11 16 9 15 7 4 3 10 5 2 1 6 4 5 35 1212-1 158 1872 1930 4599  1 ≥ 3 22 8 8 4 7 6 1 2 5 2 2 1 1 1 3 8 144-2 81 499 499 4262  6 12 18 24 30 36 42 48 54 60 66 72 78 34 90 96 MAX T T T T THOURS INTERVAL BETWEEN EVENTS  0 45.6N 144.2 W  W≥64
H ≥ 12   16   11   4   9   5   5   5   7   3   7   8   8   1   2   472058 - 1   138   3   95   4011   5210    T≥ 9   26   12   18   11   18   14   5   8   9   4   2   4   4   1   40   476 - 1   177   2819   2955   4999    ≥ 6   24   19   12   12   10   10   8   3   4   2   3   6   3   4   2   27   792 - 1   149   1492   1540   4522    t≥ 3   15   14   13   7   4   6   2   2   2   2   3   1   2   1   4   174 - 1   78   411   411   4254    6   12   18   24   30   36   42   48   54   60   66   72   78   84   90   96 +   MAX   T   T   T   T    HOURS INTERVAL BETWEEN EVENTS   46   3   3   46   3   3   46   46	G ≥ 12 4 3 8 3 6 3 5 8 1 3 3 3 2 1 1 45 SEA-2 99 3637 4767 5528.  T≥ 9 11 10 8 12 6 7 5 2 5 2 3 5 6 2 2 54 SEA-1 140 3603 39:8 5428 ≥ 6 25 11 16 9 15 7 4 3 10 5 2 1 6 4 5 35 1212-1 158 1872 1930 4599  1 ≥ 3 22 8 8 4 7 6 1 2 5 2 2 1 1 1 3 8 144-2 81 499 499 4262  THOURS INTERVAL BETWEEN EVENTS  W≥64  V≥48  V≥64  V≥48  V≥64  V≥48  V≥64  V≥48  V≥64  V≥48  V≥64  V≥48  V≥64  V≥48  V≥64  V≥48  V≥64  V≥48  V≥64  V≥64  V≥64  V≥65  V≥65  V≥65  V≥65  V≥65  V≥65  V≥65  V≥65  V≥66  V≥77  V≥76  V≥76  V≥76  V≥77  V≥76  V≥77
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	G ≥ 12 4 3 8 3 6 3 5 8 1 3 3 3 2 1 1 45 SEA-2 99 3637 4767 5528.  T≥ 9 11 10 8 12 6 7 5 2 5 2 3 5 6 2 2 54 SEA-1 140 3603 39:8 5428 ≥ 6 25 11 16 9 15 7 4 3 10 5 2 1 6 4 5 35 1212-1 158 1872 1930 4599  1 ≥ 3 22 8 8 4 7 6 1 2 5 2 2 1 1 1 3 8 144-2 81 499 499 4262  THOURS INTERVAL BETWEEN EVENTS  W≥64  V≥48  V≥64  V≥48  V≥64  V≥48  V≥64  V≥48  V≥64  V≥48  V≥64  V≥48  V≥64  V≥48  V≥64  V≥48  V≥64  V≥48  V≥64  V≥64  V≥64  V≥65  V≥65  V≥65  V≥65  V≥65  V≥65  V≥65  V≥65  V≥66  V≥77  V≥76  V≥76  V≥76  V≥77  V≥76  V≥77
H ≥ 12   16   11   4   9   5   5   5   7   3   7   8   8   1   2   4   7   2058   1   138   2   35   5   4011   5210    T≥ 9   26   12   18   11   11   8   14   5   8   9   4   2   4   4   1   40   1476   1   177   2819   2955   4999    E 6   24   19   12   12   10   10   8   3   4   2   3   6   3   4   2   27   792   1   149   1492   1540   4522    E 3   15   14   13   7   4   6   2   2   2   2   3   1   2   1   4   174   1   78   411   411   4254    HOURS INTERVAL BETWEEN EVENTS  ## 264	G ≥ 12
H 2 12 16 11 4 9 5 5 5 7 3 7 8 8 1 2 4 7 2058-1 138 3 3 5 5 4011 5210  T 2 9 26 12 18 11 11 8 14 5 8 8 9 4 2 4 4 1 40 1476-1 177 2819 2955 4999  2 6 24 19 12 12 10 10 8 3 4 2 3 6 3 4 2 27 792-1 149 1492 1540 4522  1 2 3 15 14 13 7 4 6 2 2 2 2 2 3 1 2 1 4 174-1 78 411 411 4254  6 12 18 24 30 36 42 49 24 60 66 72 78 84 90 96 4 MAX T1 T T T TH  HOURS INTERVAL BETWEEN EVENTS  9  W 264    W 265    W 264    W 264    W 264    W 265    W 265    W 265    W 266    W 2	G ≥ 12
H ≥ 12   16   11   4   9   5   5   5   7   3   7   8   8   1   2   4   7   2089   1   138   3   3   5   5   4099      ≥ 6   24   9   9   12   12   10   10   8   3   4   2   3   6   3   4   2   27   792   1   149   1492   1540   4522      ≥ 3   15   14   13   7   4   6   2   2   2   2   3   1   2   1   4   174   1   78   411   411   4254      6   12   16   24   30   36   42   48   24   60   66   72   78   84   90   66   84   84   11   411   4254      6   12   16   24   30   36   42   48   24   60   66   72   78   84   90   66   84   84   84   84   84   84   84	G ≥ 12 4 3 8 3 6 3 5 8 1 3 3 3 2 1 1 45 SEA-2 99 3637 4767 5528.  T ≥ 9 11 10 8 12 6 7 5 2 5 2 3 5 6 2 2 54 SEA-1 140 3603 3918 5428 ≥ 6 25 11 16 9 15 7 4 3 10 5 2 1 1 1 3 8 144-2 81 499 499 4262  ≥ 3 22 8 8 4 7 6 1 2 5 2 2 1 1 1 1 3 8 144-2 81 499 499 4262  T ≥ 18 24 30 36 42 48 34 80 66 72 78 34 90 96+ MAX  T T T T T T T T T T T T T T T T T T T
H ≥ 12   16   11   4   9   5   5   5   7   3   7   8   8   1   2   4   7   2058   1   138   3   3   5   4011   5210    F ≥ 9   26   12   18   11   18   14   5   8   9   4   2   4   4   1   40   1476   1   177   2819   2955   4999    F ≥ 6   24   19   12   12   10   10   8   3   4   2   3   6   3   4   2   27   792   1   149   1492   1540   4522    F ≥ 3   15   14   13   7   4   6   2   2   2   2   2   3   1   2   1   4   174   1   78   411   411   4254    F   12   12   24   30   36   42   48   54   60   66   66   72   78   64   90   66   MAN   TI   TO THE HOURS INTERVAL BETWEEN EVENTS   46   30   6   58   6   6   6   208   4265   4265    W ≥ 64	G ≥ 12
H ≥ 12   16   11   4   9   5   5   5   7   3   7   8   8   1   2   4   7   2084   1   138   3   3   3   4011   5210    F ≥ 9   26   12   18   11   18   14   5   8   9   4   2   4   4   1   40   1476   1   177   2819   2955   4099    F ≥ 6   24   19   12   12   10   10   8   3   4   2   3   6   3   4   2   27   792   1   149   1492   1540   4522    F ≥ 3   15   14   13   7   4   6   2   2   2   2   2   3   1   2   1   4   174   1   78   411   411   4254    F   12   12   24   30   36   42   48   54   60   66   72   78   64   90   66   66    HOORS INTERVAL BETWEEN EVENTS   # ≥ 6   2   2   2   2   2   2   2   2   3   1   2   1   4   174   1   78   411   411   4254    # ≥ 8	G ≥ 12
H ≥ 12   16   11   4   9   5   5   5   7   3   7   8   8   1   2   4   7   2089   1   138   3   3   3   4011   5210    T≥ 9   26   12   18   11   18   14   5   8   9   4   2   4   4   1   40   1476   1   177   2819   2955   4099    E 6   24   9   9   12   12   10   10   8   3   4   2   3   6   3   4   2   27   792   1   149   1492   1540   4522    E 3   15   14   13   7   4   6   2   2   2   2   2   3   1   2   1   4   174   1   78   411   411   4254    HOURS INTERVAL BETWEEN BETWEEN BETWEEN S    W≥64	G ≥ 12
H ≥ 12   16   11   4   9   5   5   5   7   3   7   8   8   1   2   4   7   2089   1   138   3   3   3   40   11   5210    T≥ 9   26   12   18   11   18   14   5   8   9   4   2   4   4   1   40   1476   1   177   2819   2955   4099    E 6   24   9   9   12   12   10   10   8   3   4   2   3   6   3   4   2   27   792   1   149   1492   1540   4522    E 3   15   14   3   7   4   6   2   2   2   2   3   1   2   1   4   174   1   78   411   411   4254    HOURS INTERVAL BETWEEN EVENTS   # 264	G ≥ 12
H ≥ 12   16   11   4   9   5   5   5   7   3   7   8   8   1   2   4   7   2089   1   138   2   39   4011   5210    T≥ 9   26   12   18   11   11   8   14   5   8   9   4   2   4   4   1   40   1476 − 1   177   2819   2955   4999    E 2   24   19   12   12   10   10   8   3   4   2   3   6   3   4   2   27   792 − 1   149   1492   1540   4522    E 3   15   14   13   7   4   6   2   2   2   2   3   1   2   1   4   174 − 1   78   411   411   4254    E 10   24   30   36   42   48   54   60   66   72   78   84   90   96   6   MAX   T1   T   T   T    W≥64	G ≥ 12
N ≥ 64	G ≥ 12
H ≥ 12   16   11   4   9   5   5   5   7   3   7   8   8   1   2   4   7   2058   1   138   3   3   5   4011   5210    T≥ 9   26   12   18   11   18   14   5   8   9   4   2   4   4   1   40   1476   1   177   2819   2955   4999    E ≥ 24   19   12   12   10   10   8   3   4   2   3   6   3   4   2   27   792   1   149   1492   1540   4522    E ≥ 3   15   14   13   7   4   6   2   2   2   2   2   3   1   2   1   4   174   1   78   411   411   4254    E + 3   15   14   13   7   4   6   2   2   2   2   2   3   1   2   1   4   174   1   78   411   411   4254    E + 3   15   14   13   7   4   6   2   2   2   2   3   1   2   1   4   174   1   78   411   411   4254    E + 3   15   14   13   7   4   6   2   2   2   2   3   1   2   1   4   174   1   78   411   411   4254    E + 3   16   16   17   17   1   1   1   1   1   1   1	G ≥ 12
N ≥ 64	G ≥ 12
H ≥ 12   16   11   4   9   5   5   5   7   3   7   8   8   1   2   4   7   2089   1   138   3   3   3   5   4011   5210   1   5210	G ≥ 12
H ≥ 12   16   11   4   9   5   5   5   7   3   7   8   8   1   2   4   7   2058   1   138   3   3   3   5   4011   5210    F ≥ 9   26   12   18   11   18   14   5   5   8   9   4   2   4   4   1   40   1476   1   177   2819   2955   4999    E ≥ 24   9   9   12   12   10   10   8   3   4   2   3   6   3   4   2   27   792   1   149   1492   1540   4522    E ≥ 3   15   14   13   7   4   6   2   2   2   2   2   3   1   2   1   4   174   1   78   411   411   4254    E + 10   15   14   13   7   4   6   2   2   2   2   2   3   1   2   1   4   174   1   78   411   411   4254    E + 10   15   14   13   7   4   6   2   2   2   2   2   3   1   2   1   4   174   1   78   411   411   4254    E + 10   15   16   16   16   16   16   16   16	G ≥ 12
H ≥ 12   16   11   4   9   5   5   5   7   3   7   8   8   1   2   4   7   2089   1   138   3   3   3   2099    1 ≥ 9   26   12   18   11   18   14   5   8   9   4   2   4   4   1   40   1476 − 1   177   2819   2955   4999    2 ≤ 6   24   9   9   12   12   10   10   8   3   4   2   3   6   3   4   2   27   792 − 1   149   1492   1540   4522    3   15   14   13   7   4   6   2   2   2   2   2   3   1   2   1   4   174 − 1   78   411   411   4254    4   12   16   24   30   36   42   49   24   60   66   72   789   64   90   66   44   411   411   4254    4   14   14   14   4254    4   15   16   16   24   30   36   42   49   24   60   66   72   789   64   90   66    W ≥ 64	G ≥ 12
H ≥ 12   16   11   4   9   5   5   5   7   3   7   8   8   1   2   4   7   2089   1   138   3   3   3   2099     ≥ 6   24   19   12   12   10   10   8   3   4   2   3   6   3   4   2   27   792   1   149   1492   1540   4522     ≥ 3   15   14   13   7   4   6   2   2   2   2   2   3   1   2   1   4   174   1   78   411   411   4254     6   12   18   14   30   38   24   24   6   6   6   72   78   6   9   9     6   12   18   14   30   7   8   5   6   6   6   72   78   6   9   9     HOURS INTERVAL BETWEEN EVENTS     6   12   18   14   13   7   4   6   12   13   1     1   2   1   1   1   1   1   1   1   1	G ≥ 12
N ≥ 64	G ≥ 12
H ≥ 12   16   11	G ≥ 12
\$\frac{12}{16} \frac{11}{16} \frac{14}{19} \frac{15}{15} \frac{15}{10} \frac{1}{10} \frac{15}{10}	G ≥ 12

w							1							5	8.5N	151.6W									2							59	9.2N 1	145.7¥
₩ ≥ 64		$\Box$	i	T		. 1	Ì	Т	$\top$	Т	$\Box$					4100	₩≥64		П	T	$\Box$		I	$\prod$	Ĭ	TI	I			$\Box$		Ţ		4100
<b>√</b> ≩48							$\Box$	$\Box$	I	I						4100	Ç≥48			$\perp$		$\Box$	$\perp$	$\square$	Ţ	$\Box$	┙	$\perp$	$\perp$	$\bot$	$\Box$		$=$ $\Box$	4100
	1		I	$\perp$		Ц	_	$\perp$	Ţ	Ţ	4	6-1	1	1		4100	E ≥ 34		1	1	Ш		$\perp$	$\sqcup$	$\perp$	++	4	$\perp$	18-		1	3	3	4100
ਜ ≧ 28		1	_	4_		$\sqcup$	-	+	+	+	4-1	24-1	2	7	7	4100	H ≥ 28	1	4_4	1		Н.	4.	$\downarrow \downarrow$	+	++	4	+	30-		2	7	7	4100
· F			2 2		١.	$\vdash$		+	+	+	+-	42-2	12	51	51	4100	£ ≩ 20	3 3		11-	4	1	-	+++	+	++	$\dashv$	+-	54 - 66 -	_	15 26	136	63	4100
			4 3		4		1	$\rightarrow$	٠,	+	+	66-1 204-1	30 58	148 407	151 413	4100	l <u>≥</u> 16 G	5 2	1-1	1 3	6	1 3	$\rightarrow$	+-+	3 1	1 2	+	1 1			46	308	345	4100
· · · -		$\rightarrow$	2 8 5 7		6	$\rightarrow$	$\rightarrow$	4 3	3 1	-	-	228 - 1	86	689	724	4103	G H ≥ 12	7 2	-	2 3	6	4 4	_	-	_	2 3	7		3 222-		73	636	696	4110
F-	-+ +	4 B			6		$\rightarrow$	$\overline{}$	2 3	-	-	432-1	130	1263	1351	4144	T≧ 9 ,≧ 6	18 11		7 7	$\leftarrow$	7 3	o			-	3	3 2			124	1268	1416	4175
r ⊢	23 18 11		9 4		8	-	_		2 6	$\rightarrow$		_	184	2217	2513	4184	f = 0 t ≥ 3	_		8 9		5 2	$\overline{}$		_+	$\rightarrow$		5 52			148	2330	2778	4300
[	6 12 18	24 30	36 4.	2 40	54	60	66	72 7	8 8				TE	7	T+	Тн	( - 5	6 12	18 :	24 30	36	42 4	8 54	60 6	56 7	72 78 8	_			×	TE	T	Te	TH
		HOUR	SDU	RAT	ON	OF	ξV	ENTS	5					5	4.4N	158.1W				нои	RSE	URA	TIOI	NOF	EVE 4	NTS						54	6.2N	147.54
₩≥64			$\top$	$\top$		П	Ť	$\neg$	$\top$	Т	T					4100	<b>₩</b> ≧64	T	ГТ	T			T	T	T	$\top$	丁	T	T-	$\Box$	$\Box$			4100
Å≥48	111		7	$\top$				$\neg$		$\top$						4100	A ∨ ≧ 48			1	$\Box$		$\top$		Ι	$\Box$		$\Box$		$\Box$				4100
E ≩ 34	1			$\top$			I		I	I	$\Box$	18-1	1	3	3	4100	É ≧ 34	1	1						I		$\perp$	$\perp$	18 -	1	2	4	4	4100
<sub>H</sub> ≧ 28	2 2 1	1	$\perp$	$\Box$			$\exists$		$\perp$	I	Ш	30-1	6	14	14	4100	<sub>∺</sub> ≧ 28	2	$\lceil i \rceil$	1			$\perp$	Ш	$\downarrow$	$\bot \downarrow$	_	$\rightarrow$	30 -		4	12	12	4 100
20 ≧ 20		4 2	_	—		1	_		$\perp$	$\perp$	لــــــــــــــــــــــــــــــــــــــ	60-1	28	107	112	4107	E ≧ 20	1 1	3	1	4	2 1	丄	$\bot \bot$	_	$\rightarrow$	$\rightarrow$	_ _	48-		13	62	66	4100
6 -		5 3	_		-	4	-+	2	4	$\perp$	ليد	72-2	56	266	276	4111	l ≥ 16 G	6 4		2 2	2	1 1	$\overline{}$	+	3	+++	4	<del></del>	66-		27	135	154	4100
· ·		3 7				—	9			11		132-2	91	647	670	4125	ਜ਼ ≩ 12	6 4	11	_+	6	5 6	$\overline{}$	<del></del>	4	3   1	<u>:</u> +	3			72	483	520	4115
L	2 16 10	$\rightarrow$		-			-+	_	6 4	_	-	330-1	153	1289 2304	1353	4216	T≩ 9	11 7	13 1		+-	9 1	_	-		$\rightarrow$	_	2 17	_		118	1047	1097	4 184
T 1-	23 14 9 15 8 ∠		_	_	1	_	4	_				642-1 SEA-1	174	3490	2636 4273	4469 4832	f ≥ 6	10 7	++	7 13	-	_	$\overline{}$	B 1			-	1 6	_		148	2019 3291	2124 4190	4277 5034
٠ -	6 (2 (8			3							0 96+		TE	J490 1	Ta Ta	TH	(≥ 3	6 12	7		2	1 1				3 3 5 72 78 8					TE	72911	T.	TH
		HOUR	S DU	RAT	ON	OF	E٧	ENT:	s											нои	RS	URA	TIO	NOF	EVE	INTS								
₩≥64		T 1	_	-			_5	$\neg$		$\top$	7				6.8N	141.9W	₩≥64			_	_		_	П	<del>-</del> -	$\overline{}$	$\neg$	_					0.9N	4100
A ≥ 48	-+-+	+-+	+	+	Н	$\vdash$	+	+	+	+	+-		_			4100		+-	++	+	$\vdash$	<del>                                     </del>	+	++	+	++	+	+	+	-+	-+	-		4100
E ≥ 34	111	+	+	+-		$\vdash$	_	+	+	+	+-	18 - 1	1	3	3	4100	V = +0 E ≥ 34		++		T	$\vdash$	十	+	+	++	+	+	1	$\neg +$	_	<del></del>	+	4100
<b>-</b>	2	1	$\top$	1			7	$\neg$	$\top$	十	7	30-1	3	7	7	4100	., ≩ 28	2 1	11	1	1	$\vdash$	+	T	_	11	$\neg$	$\top$	12-	.1	3	4	4	4100
E ≥ 20	4 1 3	4 3	13	1			$\neg$			T	$\top$	48 - 1	19	75	79	4100	H E ≧ 20	2 4	5	5 3	5		T	$\Box$	_		$\exists$	7	36 -	.5	24	90	98	4100
1 ≥ 16	1 4 1	2 4	2 5	3	2	2	1		I	$\perp$	$\Box$	66 – 1	27	160	173	4100	[ ≥ 16	7 6	9	3 2	3	4 5	5	1	ī	$\Box$			66-	-1	46	220	231	4102
H ≥ 12	7 4 6	2 5	7 3	3	2	2	5	2 1	1 2	1	1	96-1	53	342	397	4113	H ≥ 12	18 8	7	9 7	5	8 3	4		4 3	3 2 4	4	1 6	132-	-1	93	597	629	4115
·		7 9	-	-	9		-		5 1	-	-		104	808	911	4178	T≧ 9	20 7	+ -	_+	10				3 4	$\rightarrow$	-	4 20			150	1290	1352	4177
7 -		7 9	$\overline{}$	$\overline{}$	_	-	7	-	7 6	$\rightarrow$	-		146	1822	1972	4313	<sub>f</sub> ≥ 6	7 5	14		+	4 8	~	+-+	3 5	<del></del>	2	8 5			150	2607	2748	4473
(≧ 3 [			5				3		2 3		61	1026 - 1	120	2857	3572 T•	4583	( ≥ 3	4 5	5			3 6		4		2 3	_i	49			88	3368	4264	4922
	6 12 18 .	HOUR	SDU	RATI	ÖN	OF	Ě٧	ENT!	S	• •	, 46+	MAX	TE			тн		6 12	18	HOU	RS [	URA	TIO	NOF	ËVÉ	72 78 6 ENTS	, •	90 96	5+ MA	×	TE		T=	ТН
w T			_	_	_	1	4		<del>_</del>	_			_	5	1.7N	135.7W	w		<del></del> -			r —	_	т.	8_	<del>-, -</del>	_		$\tau$ —		<del></del>	4	9.0N	128.41
₩≧64   A >40	$\rightarrow$	-++	4	+	_	$\vdash$	-		+	+	4	<del></del>				4100	₩≥64 A		$\vdash$	+	+	$\vdash$	+	+	+	+	-+	-+	+	-+	$\longrightarrow$	$\longrightarrow$		4100
Ç≥48 E≥34	+++	-++		+-	-	$\vdash$	$\dashv$	+	+	+-	+		-			4100	Ç≥48 E≥34	<del>   -</del>	╀┼	+	┢	-	╁	++	-+	+	+	-+-	+-		$\rightarrow$	<b>-</b> →		4100
. ≥ 29	- + , + , +	-+	+	+	-	H	-+	+	+	+	+	18-1	2	5		4100	., ≧ 28		++	+	╁	-	╫	++	+	++	+	+	-	-+	-			4100
		2 1	7 1	+	-	$\vdash$	十	-	+	十	++	12-1	17	55	56	4100	H = 20 E ≥ 20	<del>    -</del>	++	<del>,</del>	$\vdash$	-	+	+++	+	+	+	+	24-	2	3	9	9	4100
1 ≥ 16	2 5 4	$\rightarrow$	_	12	,	1	_	-17	;	+	1	78-1	29	142	160	4101	<sup>1</sup> ≥ 16	6	3	1 1	2	1	+	1 +	十	++	$\dashv$	$\top$	42-		14	49	55	4100
G ⊢			9 4		3	2	2	2 2	2 1	1	2	156-1	66	415	460	4118	G H ≥ 12	3 6		4 2	2	3	3	$\Box$	72	2 1	$\exists$	11	96-		32	181	195	4109
T≥ 9 1	0 10 6	7 6	7 7	7	9	5	4	4 4	4 1		18	180 - 3	105	921	974	4137	T≥ 9	7 5	2	8 9	4	4 5	2	2	2 3	3 5	1	1 5	174-	-1	65	486	534	4130
, ≥ 6 1	8 9 11	8 9	8 8	4	2	6	7	5 4	1 3	5	49	390 – 1	149	1952	2077	4323	, ≥ 6	24 19	5	6 11	7	2 9	8	5	ī	1 2 2	2	3 28	8 306 -	-11	133	1267	1344	4153
ે ≥ 3 3	0 B 7								1 4			SEA-1	138	3552	3972	4959		38 8	6		9	2 3					1	59		-11	153	2616	3033	4351
	6 12 18	24 30 HOUR	6 4.	2 48 PAT	54 O N	0.5	66 FV	72 7 FNT	.8 8	4 9 (	0 96+	MAX	Ŧξ	T	Te	TH		6 12	18	24 30 HOIII	36 PS 1	42 4	8 54 TIO	N OF	56 7 FVF	72 78 8 NTS	14	9096	5+ MA	×	T£	Ť	Te	TH
							9		_					4	6.3N	156.0W				.,				, ,	10							4	5.6N	144.21
₩≥64 Δ	$\bot \bot \bot$	$\perp$	$\perp$		ئـــا		4		4	┷	4	<u> </u>				4100	₩≩64 Δ				1		┵	1	_		4			_				4100
√2 ≥ 48 L	-+	$\dashv \dashv$	4	1	Щ	Ц.	4	+	+	4	┿	ļ				4100	Ç≥48	-	$\perp$	-	<u> </u>	Ц-	+	+	+	+	-	+	+	+				4100
E ≧ 34	+++				H	H		+	+	+	╁┙	10 -		┝╤┤		4100	E ≧ 34	+	$\vdash$	-	<del> </del>	$\vdash$	+	++	+	++	$\dashv$	+	+	-+	$\rightarrow$	$\longrightarrow$	$\longrightarrow$	4100
H L	1 1 1	<del>,   ,  </del>	+	+-	1	$\vdash$	-+	+	+	+	+-'	18-1	30	6 88	- 6 98	4100	H ≧ 28	6 4	$\vdash \downarrow$	2 1	┼-	2	+	+	+	++	$\dashv$	+	42-	<del>_</del> _ +	15	41	41	4 100
	$\rightarrow \rightarrow \rightarrow$	3 2 8 10	2   1 3   4	_	2	1	2	+	+	+	┯	66-2	69	284	300	4100	E ≧ 20 I ≧ 16	3 2	10		2	3	2	2	+	11	$\dashv$	+	78~		33	154	161	4100
G -	$\rightarrow$		9 17		7	_	-+	е	12	4	6	174-1	110	765	797	4104	G H ≥ 12	14 9	++	5 8	2	-			2 :	-+-	-+	1 2			71	413	450	4101
		7 11	_		_				3 3		_	462-1	145	1346	1421	4133	H = 12 T ≥ 9	12 8		2 7	16						2	4 1.			104	881	941	4114
≥ 6 1	6 8 12												154	2273	2498	4320		17 8				3 3				_	$\rightarrow$	6 4			133	1872	1972	4263
	8 5 3						7	1 1	iti	1		SEA-2		3172	4427	5102	f = 3 t ≥ 3														110	3205	4082	5099
` _	6 12 18	24 30	6 4	2 48	54	60	66	72 7	70 4				TE	Ŧ	Te.	TH	•		18	24 30	36	42 4	8 54	60	66 7	72 78 8			+ MA		TE	7	T•	ТН
		HOUR	s DU	RATI	ON		11	ENTS	٥					4	6.3N	135.2W				HOU	K 5 [	URA	rio	N OF	EVE 12	.NIS						4	6.3N	126.41
₩ ≥ 64		$\Box$ T	7	П			$\Box$	$\Box$	T	$ footnote{T}$	$\Gamma$					4100	₩≥64		П				1	T	$\top$	$\Box$	Ţ		$I^-$					4100
<b>Å≥48</b>			I	Ι			J	$\Box$	$\Box$	I	$\Box$					4100	^ √ ≥ 48		$\Box$		Ι		1	$\Box$			J		$\Gamma$					4100
E ≥ 34			I	$\Box$				$oxed{\bot}$	$\perp$	$\perp$	$\Box$					4100	Ė ≧ 34			$oldsymbol{oldsymbol{oldsymbol{oldsymbol{\Box}}}$	$\Box$	$\Box \Box$	$\perp$	$\square$	$\Box$	Ш	⅃	$\Box$		$\Box$				4100
н ≧ 28	$\perp \Box \Box$	$\Box$	I				$\Box$	$\perp$	$\perp$	工		<u> </u>	L			4100	<sub>H</sub> ≧ 28	$\Box \Box$	$\square$			$\Box \Box$	I	$\Box$	$\perp$	$\bot \bot$	$\Box$	$\perp \Gamma$		$\Box$	$\bot$			4100
E ≧ 20 :	5 3 1	_		$\perp$	$\perp$	Щ	_	$\perp$	$\perp$	$\perp$	┵┙	24-1	10	18	19	4100	Ε ≩ 20		$\Box$	$\perp$	1_	ЦТ.	L	$\coprod$	4	44	┙	$\perp$	—				I	4100
	5 2 3	$\rightarrow$	_+_	Щ	ᅵ	Ļļ	_	4	4	4	4.1	36-4	19	63	70	4100	l ≥ 16 G	1	Ц	$\perp$	<del> </del>	$\sqcup \sqcup$	$\perp$	+	$\bot$	+	_	$\rightarrow$	12-		2	3	3	4100
<u> </u> ≥ 16 [	8 8 1						2	4	4	4	4	90-1	48	257	290	4108	H ≥ 12	13 1		4 1	-	2 1	4	ᆛ	4		4	4	48-		31	94	94	4107
≥ 16		7   6	9 1 6	5	1	[4 ]	5	2   1	1 3	1   2	[10]	198 - 1	93	680	725	4132	T≧ 9			5 5							1	1 1	1 168-		54	346	367	4123
≥ 16	4 10 8								$\cdot$	_	7						, ≩ 6																	4160
≥ 16	1 11 4 1	0 13	4 6	8	4	5	2	2 4		6		1770-1	120	1686	1825	4458		48 29			-	_	_			$\rightarrow \rightarrow$	$\rightarrow$	2 2			161	1074	1109	
≥ 16 5   G ≥ 12 1   T ≥ 9 1   ≥ 6 1	1 11 4 1	10 13	4 6 7 1	B 5	4	5	4	2 4	4 2	6	54	1908-1	142	3115	3542	4814		54 23	18	12 2	4	2 1	4	5	3	1 3	2	4 5	9 696-		197	2619	2927	4276
≥ 16	1 11 4 1	10 13	4 6 7 1	8 5 2 48	1 54	5	4	2 4	4 2	6	54	1908-1				_		54 23	18	12 2	4	2 1	4	5	3 7	1 3 2	2	4 5	9 696-			$\overline{}$		

23 Persistence of wave height-duration

1 58.5N 151.6W ₩≥64 65EA-6 6 2208 4224 4224	2 59.2N 145.7W ₩≥64 655^-6 6 2208 4224 4224
₩ ≥ 64     6 SEA - 6 6 2208 4224 4224       ó 48     6 SEA - 6 6 2208 4224 4224	
E = 34   6   SEA-5   6   2195   4267   4268	V≥48 6 SEA-6 6 2208 4224 4224 E≥34 6 SEA-5 6 2195 4265 4268
H ≥ 28 7 SEA-5 7 2410 4427 4434	H≥28 7 SEA-5 7 2396 4413 4420
H ≥ 20   15 SEA-1 15 2719 4468 4519	H ≥ 20 1 1 1 1 16 SEA-2 19 2824 4440 4503
1 ≥ 16	1 ≥ 16 1 1 2 1 1 1 3 1 1 1 1 17 2160 - 1 31 2693 4205 4348
G = 12 2 2 1 1 2 3 3 1 1 1 1 1 1 1 42 1698-1 62 3071 3810 4220	G ≥ 12 2 2 2 2 2 2 2 2 1 1 2 1 34 1698-1 53 3131 3877 4220
T ≥ 9 5 2 1 3 6 2 4 4 3 2 2 3 2 3 48 1692-1 90 2940 3454 4169	T≥ 9 3 2 6 1 1 2 3 1 3 3 2 2 1 3 44 1458-1 77 2934 3470 4156
£ 6 17 7 7 4 2 9 4 4 4 7 4 8 1 1 57 702-1 136 2681 2834 4141	, ≥ 6 17 3 9 5 6 6 3 3 3 4 1 3 2 3 8 51 840-1 127 2623 2794 4135
t ≥ 3 35 18 13 14 14 12 3 6 10 5 8 4 6 3 1 33 294-2 185 1626 1684 4113	t ≥ 3 21 21 5 15 9 10 10 2 8 6 5 4 2 3 2 28 306-2 151 1477 1528 4106
6 12 18 24 30 36 42 48 54 60 66 72 78 84 90 96+ MAX TI T TO TH HOURS INTERVAL BETWEEN EVENTS	6 12 18 24 30 36 42 48 54 60 66 72 78 84 90 96+ MAX TI T TH TH HOURS INTERVAL BETWEEN EVENTS
3 54.4N 158.1W	4 56.2N 147.5W
₩≥64 6 SEA-6 6 2208 4224 4224	₩≥64 6 SEA-6 6 220B 4224 4224
Å≥48 6 SEA-6 6 2208 4224 4224	V≥48 6 SEA-6 6 2208 4224 4224 1
E ≥ 34 7 SEA-5 7 2369 4167 4170	E ≥ 34 7 SEA - 5 7 239
≥ 28 10 SEA-4 10 2593 4376 4390	H = 10
	E ≥ 20   1   1   1   1   1   3   3   5EA-3   17   2250   4226   4292   1 ≥ 16   1   1   1   4   1   1   2   1   1   19   2148-1   31   2620   4129   4283
	G ≥ 12 3 6 3 2 3 3 1 1 1 2 1 1 1 45 1704 - 1 73 3088 3653 4158
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	T≥ 9 11 7 2 2 6 8 1 3 4 8 1 4 3 1 6 53 756-1 120 2756 3102 4115
£ 6 23 10 18 17 14 8 11 7 8 5 7 5 5 2 7 31 552-1 178 1744 1845 4112	≥ 6 13 10 9 11 7 6 9 5 6 4 6 6 4 3 51 420-1 150 2065 2157 4104
£ 3 28 22 13 13 11 2 6 3 3 2 3 1 1 1 6 168-1 115 546 559 4100	l ≥ 3 23 15 13 6 9 11 6 4 4 7 5 2 12 300-1 117 814 844 4100
6 12 16 24 30 36 42 48 54 60 66 72 78 84 90 96+ MAX TI T T+ TH	6 12 18 24 30 36 42 48 54 60 66 72 78 64 90 96+ MAX TI T To TH
HOURS INTERVAL BETWEEN EVENTS 5 56.8N 141.9W	HOURS INTERVAL BETWEEN EVENTS 6 50.9N 145.7W
₩≥64 6 SEA-6 6 2208 4224 4224	W≥64 6 SEA-6 6 2208 4224 4224
A ≥ 48 6 SEA-6 6 2208 4224 4224	A ≥ 48 6 SEA-6 6 2208 4224 4224
E ≥ 34 6 SEA-5 6 2195 4265 4268	E ≥ 34 6 SEA-6 6 2208 4224 4224
H ≥ 28 7 SEA-4 7 2191 4335 4342	H ≥ 28 7 SEA-5 7 2471 4330 4334
E ≥ 20	$E \ge 20 \ 2 \ 1 \ 1 \ 1 \ 3 \ 1 \ 1 \ 1 \ 182160-128275042934391$
G ≥ 16 1 4 1 1 2 1 2 192160~1 31 2559 4074 4247	1 ≥ 16     1     3     1     3     2     1     1     2     1     1     34     1806-1     50     2822     4105     4334       6 ≥ 12     5     7     5     1     2     2     3     2     3     1     4     1     3     2     52     194-1     95     3166     3531     4445
H ≥ 12 3 1 2 2 3 1 5 1 2 2 1 2 1 31 1788-1 57 2898 3758 4142	H = 12   3   1   2   2   3   3   3   3   3   3   3   3
T \geq 9 8 5 5 5 6 4 4 4 1 5 3 4 4 3 1 2 52 1086 - 1 107 3066 3299 4132 \geq 6 15 3 7 5 10 7 9 6 5 4 7 6 3 1 4 53 564 - 1 145 2276 2363 4122	$T \ge 9   12   14   12   7   9   7   3   5   3   5   5   7   2   4   56   840 - 1   151   2682   2852   4   27   2   2   3   3   3   3   3   3   3   3$
\$\frac{1}{2}\$ \cdot \frac{1}{5}\$  3  7  5  10  7  9  6  5  4  7  6  3  1  4  53  564-1  145  2276  2363  4122    3  14  18  12  8  6  6  8  7  2  6  5  2  2  2  3  16  258-1  123  1006  1011  4100    4100   3  4122   3  14  18  12  8  6  6  8  7  2  6  5  2  2  3  16  258-1  123  1006  1011  4100   2  2  2  2  2  2  2  3  16  258-1  123  1006  1011  4100  2	1 ≥ 3 20 6 9 7 8 5 5 5 3 1 3 4 1 11 186-1 88 632 658 4100
5 12 18 24 30 36 42 48 54 50 55 72 7P H4 90 96+ MAY TI T TO TH	6 12 18 24 30 36 42 48 54 60 66 72 78 84 90 96+ MAX TI T TH TH
0098 NTERVAL PETWEEN EVENTS 7 51.7N 135.7W	HOURS INTERVAL BETWEEN EVENTS 8 49.0N 128.4W
₩ ≥ 64 6 SEA~6 6 2208 4224 4224	W≥64   6 SEA-6 6 2208 4224 4224
A ≥ 48 6 SEA-6 6 2208 4224 4224	A ≥ 48 6 SEA-6 6 2208 4224 4224
E ≥ 34 6 SEA-6 6 2208 4224 4224	E ≥ 34 6 SEA-6 6 2208 4224 4224
H ≥ 28 7 SEA-6 7 2500 4295 4300	H ≥ 28 6 SEA-6 6 2208 4224 4224
E ≥ 20 1 1 1 1 2 1 1 1 4 SEA-1 22 2548 4233 4289	E ≥ 20 7 SEA-6 7 2410 4291 4300
1 ≥ 16 2 3 1 1 1 1 1 1 24 2166 - 1 35 2784 4160 4319	G ≥ 16 1 1 1 1 1 1 1 1 1 4 SEA − 3 20 2843 4447 4502
H \(\frac{2}{2}\) 1 2 2 1 1 2 2 1 1 2 46 17/6-1 68 3207 3790 4232	H≥12 3 1 2 1 1 1 2 1 1 1 2 2 1 4 1 2028 - 1 67 2845 3709 4213
$T \ge 9 5 8 5 4 1 5 2 7 3 4 3 2 1 2 253 1158 - 1 107 2903 3255 4192$ $\ge 6 20 17 9 8 5 3 5 6 9 2 3 2 4 2 2 50 678 - 1 147 2115 2267 4121$	
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\frac{2}{4} \stackrel{?}{=} \frac{6}{13} \stackrel{15}{16} \stackrel{18}{8} \stackrel{15}{5} \stackrel{10}{10} \stackrel{1}{1} \stackrel{13}{3} \stackrel{13}{3} \stackrel{17}{5} \stackrel{15}{3} \stackrel{12}{2} \stackrel{12}{2} \stackrel{14}{4} \stackrel{1170-1}{3} \stackrel{132}{12} \stackrel{2511}{2842} \stackrel{2842}{4} \stackrel{4133}{122} \stackrel{11}{4} \stackrel{10}{10} \stackrel{11}{4} $
6 12 18 24 30 35 42 48 54 50 66 72 78 84 90 96+ MAX TI T T# TH	6 12 18 24 30 36 42 48 54 60 66 72 78 R4 20 96+ MAX TI T TO TH
HOURS INTERVAL BETWEEN EVENTS 9 46.3N 156.0W	HOURS INTERVAL BETWEEN EVENTS 10 45.6N 144.2W
₩≥64   6 SEA~6 6 2208 4224 4224	₩≥64 6 SEA-6 6 2208 4224 4224
A ≥ 4B 6 SEA-6 6 2208 4224 4224	Å≥48 6 SEA-6 6 2208 4224 4224
E ≥ 34 6 SEA-6 6 2208 4224 4224	E ≥ 34 6 SEA-6 6 2208 4224 4224
B SEA-5 8 2477 4258 4264	H ≥ 28 6 SEA-6 6 2208 4224 4224
E ≥ 20 2 1 2 2 1 1 2 24 SEA-1 33 3150 4442 4540	E ≥ 20 2 1 1 2 13 SEA-2 19 2539 4320 4361
G ≥ 16 3 7 1 3 2 2 1 3 1 5 1 2 1 43 1860 - 1 75 3247 4039 4339 G	$\frac{1}{6} \ge 16$ $\frac{2}{3} \ge \frac{2}{3} \ge \frac{1}{3} = \frac{1}{3}$
H ≥ 12 [15] / [6] 2 [6] 3 [6] 4 [3] 2 [4] [1 [3] [1] [52] 1200-1 [115] 289 / [3401] 4194	H ≥ 12 2 6 4 4 1 1 2 5 3 2 1 5 1 2 40 1620-1 /9 3068 3824 4268
$T \ge 9   19   11   7   7   8   8   1   5   6   3   5   3   3   4   54   822 - 1   144   2592   2765   4153   4   6   17   16   12   11   8   9   10   6   3   9   3   7   2   3   3   37   498 - 1   156   1767   1829   4107$	T≥ 9 11 8 8 6 9 4 1 3 4 1 2 2 1 2 47 1140-1 109 2705 3269 4196 ≥ 6 18 11 10 11 5 3 7 2 2 2 1 4 5 3 2 48 732-1 134 2203 2298 4107
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	≥ 3 19 9 8 7 6 9 4 5 7 1 6 4 2 2 18 372-1 107 971 1017 4100
6 12 18 24 30 36 42 48 54 60 66 72 78 84 90 96+ MAX TI T TO TH	6 12 18 24 30 36 42 48 54 60 66 72 78 84 90 96+ MAX TI TO TH
HOURS INTERVAL BETWEEN EVENTS 11 46.3N 135.2W	HOURS INTERVAL BETWEEN EVENTS 12 46.3N 126.4W
W≥€:	W≥64 6 SEA-6 6 2208 4224 4224
\$\frac{1}{2} \delta \text{48}\$	\$\frac{1}{248}\$   \$\frac{1}{6} \text{SEA-6} \text{ 6} \text{ 2208} \text{ 4224}
E ≥ 34 6 SEA-6 6 2208 4224 4224	E ≥ 34 6 SEA-6 6 2208 4224 4224
H ≥ 28 6 SEA-6 6 2208 4224 4224	H≥28 6 SEA-6 6 2208 4224 4224
E ≥ 20 1 1 1 1 1 1 SEA-4 16 2445 4426 4445	E ≥ 20 6 SEA-6 6 2208 4224 4224
1 ≥ 16 1 3 1 2 1 1 1 19 2202-1 27 2787 4285 4355	≥ 16   8 SEA-5 B 2433 4245 4248
$\frac{1}{4} \ge 12 \ \frac{3}{4} \ \frac{4}{1} \ \frac{1}{1} \ \frac{1}{1} \ \frac{1}{2} \ \frac{2}{2} \ \frac{2}{1} \ \frac{37}{1800} - \frac{154}{54} \ \frac{3049}{3049} \ \frac{4019}{4301}$	G ≥ 12 3 2 11 2 3 1 22 2178-1 34 2909 4306 4393
T≥ 9 7 7 6 5 4 3 2 4 4 1 2 3 2 1 44 1476-1 95 2775 3529 4222	T≥ 9 7 4 2 1 4 3 3 3 2 39 2040-1 68 3056 3892 4236
£ 6   13   10   7   4   9   3   4   7   1   3   3   3   3   2   2   47   756 − 1   121   2366   2695   4162	≥ 6 27 24 7 2 3 5 10 3 3 5 3 1 4 2 3 55 1446-1 157 2851 3116 4165 ≥ 3 46 37 14 10 7 171 . 5 3 5 8 5 3 4 4 18 318-1 195 1336 1353 4104
$\frac{1}{6}$ $\frac{3}{12}$ $\frac{10}{18}$ $\frac{10}{13}$ $\frac{10}{16}$ $\frac{10}$ $\frac{10}{16}$ $\frac{10}{16}$ $\frac{10}{16}$ $\frac{10}{16}$ $\frac{10}{16}$	6 12 18 24 30 36 42 48 54 60 66 72 78 84 90 96+ MAX TI T TO TH
HOURS INTERVAL BETWEEN EVENTS	HOURS INTERVAL BETWEEN EVENTS
3 Persistence of wave height-interval	Summer
'A L AIRIRIAN AL MALA HAIRHELMINIOLEU	Cullino

11-510																																											
W ~ .	. –				-	_		_	_	-	_1	_	$\overline{}$	_	_	_	1	_	<del>,</del>	58.5N	151.6 W	W	. –	_	_		_	1	1	_		-	2		_	_	_	_			5	9.2N	145.7W
₩≥6- ^≥4-	_	+-	<u> </u>	╁	4	4	-+	+	-		$\dashv$	╁┤	╁╾┥	-	-	├	24-1	1	4	4	4545 4545	₩≩64 A ∨≥48		+	+	+	+	$\vdash$	┼			+	+	+-	+	+-	+-	╀	$\rightarrow$				4545 4545
V = -	_	3	2	1	1	3	-†	+	-	$\dashv$	$\dashv$	H		-		-	36-3	14	43	43	4545	V = 40 E ≥ 34		1 2	6	+	1	1	┢		$\vdash$	+	+	+	+	+	+	36	5 – 1	14	40	40	4545
_ ≧ 2	-	_	9		3	3	7	1		2	1	П	П	7	Г	Г	66-1	36	134	134	<del></del>	., ≧ 28	-	7 7		-	-	5	1			十	1	1	+	$^{+}$	+	_	2-1	48	146	146	4545
£ ≩ 2	o 🗓	4.5	_	$\rightarrow$	12	$\rightarrow$	_	$\rightarrow$	÷	د	1	1	1	5	2	1	144 - 1	100	557	560	4545	E ≥ 20	2	B 1:			0 5			6	4	4 5	5 1	1	1	1	5	132	2-1	114	594	595	4550
l ≩ 1: G	_	_		11	-+	-+	-+	0	$\rightarrow$	4	$\overline{}$	3	-	2	1	+	162-1	135	920	934		l ≥ 16	-	i [1:	$\overline{}$	+	7 10	+	+	-	-	_	7 5	_	$\overline{}$	_	$\rightarrow$	-	$\overline{}$	158	1078	1094	4556
H ≥ 1		_	_	23	$\rightarrow$	$\rightarrow$	$\rightarrow$	-+		8	$\overline{}$	6	$\rightarrow$	$\rightarrow$	-	27	216-1	196	1484	1554	<del></del>	H ≥ 12	-	-	+	-	4 13	+	+	-	$\rightarrow$	-	7 5	-+-	-	+-		+		185	1732	1787	4568
T≩ '	9 37 5 32	+-	9	21 7	$\rightarrow$	$\rightarrow$	12	$\rightarrow$	-		10	-			2	77	960 - 1 1320 ~	247	2358 3426	3590		T≥ 9	·  =:	-	-	-	8 12	+	+	7	$\rightarrow$	_	5 Z	-	$\overline{}$	_	-	1 135	-	186	2412 3349	2538 3649	4600 4894
, = ' t ≤ '	_	+-	2	5	-+		3			6		_		$\rightarrow$	-	60	<del></del>	114	4411	5273		, ≥ 6 t ≥ 3		1/2	_	+-	3	-	+°	5	2	<u> </u>	_	2	-	_	-	-	12-1	99	4347	5111	5510
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				но	UR	SD	UR	ATT	ON	OF	3	EN.	15							54.4N	158.1W					۲	100	RS	DUF	TAS	ON	OF	EVE 4	NTS							5	6.2N	147.5W
₩≥64	٦.	L			I			Д			$\Box$	$\Box$	$\Box$	$\square$				ļ.,			4545	W ≥ 64				Ι	I						$\perp$	L	I	I	$\perp$	$\Box$					4545
Ç≥48	-	-	1	2	-	_	_	4	_	_	$\dashv$	Щ	ы	_	<u> </u>	L!	24-2	5	13	13	4545	A ≥ 48		1	1	1	4	1	1			4	4	_	+	4	┿	+	2 – 1	1	2	2	4545
E ≩ 34	ı 🗠	_	3	8		_	2	+	3	$\dashv$			r <del>-</del>			-	42-2 54-3	57	216	69 220	4545 4545	E. ≩ 34	-	-	1 2	-	+-	+-	3	2	+	+	, 1,	+	+	+	+	-	2-2	22 65	73 257	73 257	4545 4545
H = 20	-	+	_	14	$\rightarrow$		$\rightarrow$	$\overline{}$		7	3	3	1	1	3	5	138-1	144	832	846	-+	H ≧ 26 E ≧ 20	_	-+-	+	+-	6 12		13	_		5 3	-	-	3	1	17	+-		151	925	926	4556
_ ≥ 10		25		_	$\rightarrow$	$\rightarrow$	-	9	$\rightarrow$	$\rightarrow$	$\rightarrow$	4	2	$\rightarrow$	-	19			1456	1514	<del></del>	≧ 16	_	4 1	$\overline{}$	$\overline{}$	5 12	$\overline{}$	+	-	$\overline{}$	11 6	_	_	<del></del> -	6	+	+		191	1549	1570	4568
G H ≧ 1:	2 35	18	14	13	20	15	13	خ	6	6	10	9	4	6	7	53	510- 1	244	2503	2610	4698	G H ≥ 12	2 20	0 1	1 15	1	1 9	15	10	13	17	9 :	5 7	7	2	4	56	30€	6 – 1	211	2462	2564	4619
7≥ 9	-	+	-	13	$\rightarrow$	$\rightarrow$	_	_	$\rightarrow$	5	$\rightarrow$	-	8	$\rightarrow$	-	80		223	3510	<del>-</del>		T≧ 9	-	_	_	+	12	+-	+	4	$\rightarrow$		2 6		$\overline{}$	4		-	$\overline{}$	203	3290	3491	4687
, -	7	4	4	3	5	3	4	5	$\rightarrow$	6	$\rightarrow$	2	Н	3	6	63	_	117	3866	4590	<del></del>	, ≥ 6		1 4	1	3	3	3	4	2	_	4 :	3 7	3	1	3	-+-	+		107	4200	5015	5433
, ≧ :	ب •	12	18	24	30	36	42	68		60		72	78		90		SEA-4	25 TE	3274	5428	5492 TH	( ≥ 3	3 [2		2 16	1.2	4 30	36	42	48	54	60 6	6 7	2 76	-	٠,٠	17	175	A-A	21 TE	3224 T	5100 Te	5227 ;
		_	_									EN'						-		56.8N	141.9W						100					0 F				-						0.9N	145.7W
₩≥64	. [	Ţ	_	П		1	$\neg$	П		_ [	Ť					Г		Τ	Γ		4545	₩ <u>≥</u> 64	-	Ţ	Т	I	1	Τ	T	Г	П	$\neg$	Ť	T	T	Т	T	T					4545
A ∨ ≥48	-	Ī					$\Box$	$\Box$					口				6-1	1	1	1	4545	A ∨ ≥ 48	-	Ţ	1	Ι	I	İ	I				I	T	I	I	I	18	3 - 1	3	6	6	4545
E ≥ 3	1 7	7	5	-	$\rightarrow$	2	1	1	1	[	_	Ш	$\sqcup$	_	<u> </u>		54-1	32	101	101	4545	É ≩ 34	1	1 3	-	+	-+-	<del>-</del>	1				I		$\perp$	I	I	+ -	2 ~ 1	35	106	106	4545
H ≥ 28	113	+		14	$\rightarrow$	3	$\rightarrow$	-+	1	1	_		1	4	٦		84 – 1	73	314	314	4545	H ≥ 28	-	5 1:	_	_	4 10	$\overline{}$	+	3			1	4.	1	+-	4		0-1	86	341	341	4545
E ≥ 20	_	15	13		16	-+	-		9	+	+	6	9	-+	3	9	174 - 1 234 - 1	143	1036	1038	_	E ≧ 20 I ≧ 16	_	4 2: 6 2	-	-	5 15 6 18			•	-	13 8	-+-	_+-	-+ ·	+	+	+		194 235	1203 2050	2061	455 4584
G = 1:		17	_	$\rightarrow$	-+	0		-	- 1	$\rightarrow$	$\rightarrow$	$\rightarrow$	$\overline{}$	$\overline{}$	-	64	492-1	193	2539	2634		G H ≥ 12	-	1 1	-+	+		+	6	7		-+-	0 4	$\rightarrow$	_	$\rightarrow$	-	+		185	2823	3081	4666
7≥ 9		8	7	6	4	5	5	7	8	11	1	5	2	6	5	72	924 – 1	168	3031	3429		T ≥ 9	-	4 6	+	+	4	+	+	2	_		3 1	_	-	+		+		143	3437	4002	4900
, ≥ 6	-	+	4	$\rightarrow$	$\rightarrow$	-	$\rightarrow$	_	2	2		_	2	2	2	-	_	+	4150	4794		, ≥ 6	-	1	1	4	. 1	į.	1	2	2				1	3	52	152	24 – 1	70	3892	4969	5298
t ≥ :	3 [2	_	2	24		21		Щ.		ᆛ		ليا	لپ	ᆜ		27	SEA-4	√ 38 T£	4045 T	5737	7 5829 TH	t ≥ 3			۰,	Ŀ	1	Ц.	Ļ	L	1	$\perp$	1	1	L	Ļ	16		A-4	20	3538	5606 T•	5642
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W <u>≥</u> 64	<u></u>				Ŧ	Т	-	Т	_	_	-4	$\neg$	$\overline{}$	$\neg$					:	51.7N	135.7 W	<b>₩≥64</b>	_	-	-	Т		_	-	1			8	1	$\overline{}$	$\overline{}$	$\overline{}$	_		,	4	9.0N	128.4W
A ≥ 48	_		7	+	-+	-+	+	+	+	-	-	-	+	+	Н	Н	18-1	1	3	3	4545	A V ≥ 48		+	+	+	+-	╁		-	$\dashv$	-+	+	+	+-	+	+-	+			<del></del>		4545
E ≥ 34		5	11	5	6	7	+	T	T	T	$\exists$		,	$\exists$			78 - 1	42	120	120		E ≧ 34		6	7	3	1	1			Ħ	1	Ť	+	+	+	+-	60	0-:	25	72	72	4545
ન ≧ 28		13	$\overline{}$	13	-+	7	_	2	$\rightarrow$		2	$\supset$	$\supset$	$\supset$	1		90-1	95	368	368	4545	<sub>H</sub> ≧ 28	3 8	9	12	2 5	7	7	1	4		1	1		1	1		84	4-1	55	222	222	4545
€ ≩ 20		12			-+	-		-	-	-			-	+	3	•	270-1	177	1165	1168		E ₹ 20	11	5 16	-	+	7 10	+	11	-		10 4	-		$\overline{}$	3	+-	_	8 - 1	125	795	796	454
; <u>≥</u> 16 G ≥ 1;	-	19	_	13	$\rightarrow$	$\rightarrow$	16 1	-	$\rightarrow$	11	$\overline{}$	$\rightarrow$	-	$\rightarrow$	-	36 60	282 - 1 540 - 1	193	1855 2757	1896 2847	+	l ≥ 16 G	-	5 1	+	113	_	+	+	11	$\rightarrow$	-	1		+	+-		+		174	1354	1384	4575
H ≃ '4	-	10	$\overline{}$	-	$\rightarrow$	$\rightarrow$	-	$\overline{}$	$\rightarrow$	$\rightarrow$	$\rightarrow$	$\rightarrow$	$\rightarrow$	$\rightarrow$	$\overline{}$	$\vdash$	1116-	+	3320	3551		H≧ 12 T≥ 9	_	4 1: 1 16	_	+	$\rightarrow$	-	+	13	$\rightarrow$	-	5 5	<del></del>	-	+-		+		177	2167 2788	2237 3030	4603 4660
,	<u> </u>	+		5	$\rightarrow$	5	$\rightarrow$	-		1	$\rightarrow$	-	1	$\overline{}$	-	-		<del></del>	3651	4485		, ≥ 6	-	4 10	-+-	-	$\rightarrow$	+-	+	1	+		1 3	-	$\overline{}$	+	+	113		138	3381	3869	4711
, ≥ 3	3			2	_	1	1	$\perp$		$\Box$			$\Box$	$\Box$			SEA-4		3279	5209			13		2	-	_			3			2 1	1	1	1	33	SE	A-2	53	3563	4842	5066
	6	12	18	24 H O	10 UR:	6 D	42 4 URA	B :	54 DN	60 O F	66 EV	72 EN	78 TS	ë4	90	96+	MAX	TE	т	T●	TH		6	1,	2 18	2 ·	100	36 RS	42 DUF	48	54 O N	60 6 OF	6 7 EVE	2 76 NTS	) 64	90	096+	+ м	A A X	TE	*	T•	TH
	_	1				,	1	_	_т	- - T	9	_	_	_	_			·	,	46.3N	156.0W		_	_			, , ,		1		• • •		0					_			4	5.6N	144.2W
₩ ≥ 64 ^ > 48		-	-	$\dashv$	+	+	+	+	+	$\dashv$	$\dashv$	$\dashv$	-+	$\dashv$	$\dashv$	Н	6-2	2	2	2	4545 4545	W ≥ 64 A > 48	_	+	2	+	+	+	$\vdash$	H	$\vdash$	+	-	+	+-	+	+	<del> </del>	3 - 2		7		4545
√ ≩ 4 8 E	_	4	5	5	8	+	+	+	+	$\dashv$	$\dashv$	$\dashv$	+	$\dashv$	$\dashv$	Н	30-8	_	89	89	4545	Ç≩48 E≩34		10	_	-	4	Ť		Н	$\dashv$	+	+,	+	+	+-	+-	+	2-1	3 29	84	94	4545
_ ≥ 28	_	20	$\overline{}$	-	-	9	в	1	2	7		$\exists$	$\dashv$	1	$\vdash$	П	54-2	80	283	287	4545	_ ≥ 28		-+-	3 15	+	+	8	4	-	1	1	+	+	+	+	Ť	+	4-1	83	270	270	4545
H ≥ 20	-	25	$\overline{}$		-	-	_	_	7	9	4	4	3			9	132-2	178	989	1010	+	H = 20		9 16	_	_	5 13		18	11	11	5	7 2	2	2	3	9	+ -		171	1068	1079	4550
! <u>≩</u> 1€ G	-			27			15 1			16			9			27	300 – 1	232	1796	1838		l <u>≥</u> 16 G	_	-	-	+	3 14		_		$\rightarrow$		3 8		-	_		+		207	1805	1865	4564
H ≥ 12				6						3		$\rightarrow$	$\rightarrow$	_	1	-	588-1	211	2822	3017		H ≥ 12			8		14					6 :			-	_			-	178	2666	2859	4644
T≱ 9		5					8 !		$\rightarrow$	$\rightarrow$	$\rightarrow$	$\rightarrow$	$\rightarrow$	$\rightarrow$			870-2 1776-1	157 98	3436 3923	4051 5379		T≩ 9 f ≩ 6		_	_	+	1 3	+ -	+-	_	$\rightarrow$	8 :	3 2	1	+,	3	-	+		150 94	3282 4054	3703 5027	4794
, = 0 1 ≥ 3			-	+	+	+	+	+	_	_	$\dot{+}$	7	$\dashv$	7		11	SEA-5		2519	5227	+	f <sup>= 0</sup> t ≥ 3	1	+3	2				2	-	+	-	+	+	+	+			$\overline{}$	28	3332	5436	5484 5520
	6	_	16	24										84	90	96+	MAX	TE	т	Υe	ТН	`	6	12		2.										90	0 96+		1A <	TE	Ť	T•	TH
	_			МŲ	U K :	עי	U K A		. N		11	ENT	, ə ——			,				46.3N	135.2W		_			Н	100	ĸ 2	UUF	AT	ON.		2	MIS		_		_			4	6.3N	126.4 W
₩≥64 A				I	I	Ţ	Ţ	Ţ	J	_Į	J	$\exists$	_[	Ţ	_]	لـ		$\vdash$			4545	₩≩64 A	F	T	$\perp$	I	Į_				$\Box$	I	I	I	$\perp$	$\perp$	$\perp$	$\Box$					4545
A √ ≥48		ابا	Ļ	+	+	+	+	+	+	-+	4	4	+	$\dashv$	-		6-3	3	3	3	4545	A ≥ 48		4	+-	1	+-	Ļ		Щ	$\vdash$	-4-	$\downarrow$	$\perp$	+	+	┿-	<del> </del> _			لييب	اا	4545
E ≧ 34		18	_		3	+	6	,	;+	$\dashv$	$\dashv$	$\dashv$	<del>' </del>	$\dashv$	↲	-	78-1 90-1	28 74	81 277	81 277	4545 4545	E ≩ 34 > 29	5 9	_	+	+-	-	1 2	-		$\forall$	+	+.	+	+	+	+-	+	5-1	13	30	30	4545
H = 20		19						-	10	6	5	3	5	4	+	7	192-1	161	979	1004	+	H ≧ 28 E ≧ 20	, ,	0 1		-		+-	4	7	3	4	3 2	+	1	+	2	+	B - 1	92	106 474	106 474	4545 4545
! ≩ 16	18			13 1			12 1		$\rightarrow$	$\rightarrow$		$\rightarrow$	$\rightarrow$	$\rightarrow$	2	27	282-1	192	1650	1694		! ≥ 16	$\vdash$		_	+	4 11	+	+	8	6	-	5 5	_	+-	1	+-	+		147	981	1000	4551
G H ≩ 12		-		11	_+			-+-	7			_	7	4	$\rightarrow$	60	432-1	177	2466	2637		G H ≧ 12			7 18	+	_	+-		9	-		5 4		-	2	_	+		186	1825	1892	4586
T≩ 9	12	11	9		2	-+-	-	5 1	5	3	-+	+		5	-+	$\overline{}$	1068 - 1	149	3139	3393		T ≩ 9	2:	2 10			2 10	7	-	12	$\rightarrow$		2 5	_	-	+-	+-	+	$\rightarrow$	181	2619	2794	4693
,	-		_	11	_	-	4	4	+	4	-+	1	3	3	_		1704 - 1	117	3470	4053		, ≥ 6	$\overline{}$	_	12	-	_	ļ_	6	7	$\rightarrow$	5	4		-	+				152	3158	3568	4727
, ≥ 3	3			1 24 3	10 3	6	42 4	6 5	2	60	66	72	 78			96+	SEA-2	45 TE	3661 T	5067	5219 TH	; ≥ 3	يا ه	2 6			4 30			48		2 60 6	6 7				96+		32 - 1	82 TE	3520	4855	5198 TH
_	-	•		но	JRS	D	ŲRA	TIC	N	OF	E٧	ENT	ſS					-			•					Н	ΙΟÚ	RS	DUF	1TAS	ΟN	ΟF	EVE	NTS									
Fall																													23	F	9	rsi	st	er	ıc	е	of	W	vav	e h	eigh	t-du	ratio

Fall

23 Persistence of wave height-duration

	II·511
1 58.5N 151.6W	2 59.2N 145.7W
W ≥ 64     5     SEA-5     5     1840     4566     4566       ó 48     6     SEA-5     6     2185     4911     4915	W≥64 5 SEA-5 5 1840 4566 4566
	V≥48 5 SEA-5 5 1840 4566 4566
E ≥ 34	E ≥ 34 1 1 1 1 14 SEA-1 17 2803 5222 5262
H ≥ 28	H ≥ 28 3 2 1 2 3 3 1 1 2 1 31,1896-1 50 3519 5015 5161
E ≥ 20 8 4 5 5 3 5 1 4 3 2 1 2 3 2 52 1236 -: 100 3331 4141 4701	E ≥ 20 10 6 3 3 4 4 4 3 1 4 1 1 1 5 60 1776-1 110 3711 4329 4919.
G	G = 16 19 8 8 10 6 8 3 5 6 3 1 6 4 3 1 65 1278-1 156 3231 3687 4770
$H \ge 12 \   23 \   10 \   10 \   13 \   10 \   10 \   8 \   11 \   9 \   5 \   5 \   10 \   9 \   3 \   2 \   60 \   522 - 1 \   198 \   2753 \   3072 \   4609$ $T \ge 9 \   35 \   20 \   24 \   19 \   18 \   12 \   13 \   16 \   11 \   18 \   6 \   12 \   9 \   3 \   8 \   35 \   330 - 1 \   249 \   2202 \   2308 \   4570 \   248 \ $	$H \ge 12$ 20 12 15 11 11 9 5 6 6 5 6 5 6 5 8 4 54 546-2 182   2567 2842 4656
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	T≥ 9 23 28 17 12 20 5 6 6 10 4 12 6 7 4 5 38 360~1 203 194: 2083 4566
	, ≥ 6 28 30 11 17 14 13 17 7 8 10 4 4 3 3 3 13 270~1 185 1188 1258 4558
$t \ge 3 \frac{36}{2114} \frac{15}{7} \frac{7}{8} \frac{8}{5} \frac{5}{2} \frac{4}{4} \frac{1}{11} \frac{1}{11} \frac{90-1}{90-1} \frac{115}{115} \frac{392}{392} \frac{416}{416} \frac{4548}{4548}$	t ≥ 3 26 13 23 12 5 4 4 2 3 2 1 1 1 1 1 114-1 98 366 399 4545
HOURS INTERVAL BETWEEN EVENTS	6 12 18 24 30 36 42 48 54 60 66 72 78 84 90 96+ WAX TI TO THE HOURS INTERVAL BETWEEN EVENTS
3 54.4N 1S8.1₩ ₩≥64 55 SEA-5 5 1840 4566 4566	4 56.2N 147.5W
A	W≥64 5 SEA-5 5 1840 4566 4566
	V≥48 6 SEA-5 6 2'86 4912 4914
	E ≥ 34   1   2   1   1   19   SEA - 1   25   3153   5303   53 6
H = 28	H ≥ 28 2 2 2 3 3 3 2 2 2 1 3 1 1 42 1170 - 1 66 3364 4775 5032 F ≥ 20 10 6 7 8 4 7 5 5 6 2 1 5 3 4 4 68 822 - 1 145 3211 38:8, 4773
1 ≥ 16 21 17 22 19 17 11 12 9 8 9 4 4 3 4 4 61 390 - 1 225 2768 3189 4695	
$G = 12 \ 32 \ 33 \ 26 \ 25 \ 18 \ 13 \ 5 \ 11 \ 10 \ 10 \ 8 \ 1 \ 3 \ 6 \ 2 \ 40 \ 318 - 1 \ 243 \ 1976 \ 2156 \ 4613$	
T ≥ 9 53 35 30 25 16 16 5 4 8 7 4 5 2 ! 1 11 198 -1 223 1086 1147 4552	473
. ≥ 6 35 27 16 7 7 6 8 2 3 2 1 1 2 2 108 -2 119 443 448 4551	
t ≥ 3 9 7 4 3 1 1 1 54-1 25 64 64 4545	
6 12 18 24 30 36 42 48 54 60 66 72 78 44 90 96+ MAX TI T TA TH	6 12 18 24 30 36 42 48 54 60 66 72 78 H4 90 96+ MAX T T
HOURS INTERVAL BETWEEN EVENTS  56.8N 141.9W	HOURS INTERVAL BETWEEN EVENTS
₩ ≥ 64 5 10 mm 2 5 1840 4566 4555	6 50.9N 145.7W
A ≥ 48 6 SEA-5 6 1952 4651 4652	A ≥ 48 1 1 6   SEA - 5 7   1954   4644   4650
E ≥ 34 3 1 1 1 1 1 1 1 27 SEA-1 36 3112 5088 5189	E ≥ 34 1 2 1 2 1 1 1 1 1 1 24 1896 - 1 36 2626 5:30 52 50
H ≥ 28 1 2 1 1 6 2 2 1 2 3 1 1 1 49 1398 - 1 73 3883 4817 5131	_ ≥ 28 4 2 6 2 4 3 5 3 1 3 5 1 1 1 1 45 SEA-1 8' 3559 4859 52
E ≥ 20 11 5 4 7 7 6 3 5 5 6 1 5 6 1 3 65 146-1 140 3421 3904 4929	[ ≥ 20 20 14 12 14 7 9 10 6 10 8 2 3 4 3 9 56 8 6 - 1 189 23 9 34 75 45 7
G ≥ 16 14 16 15 17 4 11 7 8 12 5 7 4 4 5 5 52 558-1 186 2598 2951 4640	1 ≥ 16 47 23 23 14 9 8 4 13 7 8 4 5 7 8 6 45 528 - 1 231 2336 2564 4586
H ≥ 12 30 18 11 16 8 10 7 13 10 4 5 4 5 4 4 38 372-1 187 1777 1960 4554	H ≥ 12 39 18 11 14 17 10 9 10 7 3 3 3 3 4 3 28 378-1 182 1459 1589 4549
T ≥ 9 30 20 14 11 11 11 9 4 3 5 6 8 3 1 19 300-1 166 1200 1278 4549	T≧ 9 29 27 19 14 7 6 8 4 1 6 4 4 1 2 4 9 330-1 145 864 905 4552
, ≥ 6 35 13 12 6 12 8 6 6 2 2 i 4 1 1 3 138~1 112 511 549 4545	≥ 6 18 15 9 11 2 2 2 1 4 2 1 1 1 2 246-1 70 3:0 331 4547
$t \ge 3 \frac{1113}{48-2} \frac{3}{42} \frac{11}{2} \frac{2}{11} \frac{2}{11} \frac{48-2}{11} \frac{34}{11} \frac{90}{11} \frac{92}{4545}$	(≥ 3 10 3 2 2
HOURS INTERVAL BETWEEN EVENTS	6 12 18 24 30 36 42 48 54 60 66 72 18 84 90 96+ MAX HOURS INTERVAL BETWEEN EVENTS
7 51.7N 135 7W  W≥64 7 566 4566 4566	8 AG ON 128 4W
A	W≥64 5 SEA-5 5 P40 4566 4566 A
V ₹ 48	A≥48 5 5 5 84C 4566 4566 E ± 34 1 1 1 1 1 1 1 1 21 5 E A − 2 28 28 34 5525 539
≥ 28 4 3 9 2 5 3 6 1 2 1 3 3 2 3 2 46 1758 - 1 95 3694 4741, 5109	<del></del>
$\xi \triangleq 20 + 9 + 5 + 20 + 12 + 7 + 15 + 14 + 3 + 3 + 3 + 4 + 9 + 1 + 1 + 3 + 64 + 624 - 1 + 173 + 3098 + 36 + 15 + 4773 + 4$	28 2 1 2 2 1 2 2 1 2 2 3 1 1 1 2 3 6 1470 - 1 57 3350 520 5423 E 20 9 8 4 7 6 2 1 6 2 8 2 4 2 1 60 966 - 122 3223 3959 4753
£ 16 121 18 121 12 19 15 7 8 6 5 7 8 6 2 4 49 576-1 208 2551 2833 4694	16 20 14 15 9 12 4 19 9 5 3 6 3 5 3 55 594-1 172 290: 3379 4131
5 ≥ 12 36 9 21 11 23 11 11 8 8 5 6 6 2 4 28 354-1 189 1637 1814 4598	G ≥ 12 26 19 10 14 10 10 6 4 5 6 6 2 2 3 4 49 504-1 176 2166 248 464
T ≥ 9 28 21 19 16 10 14 6 6 5 5 4 1 2 1 14 234-1 152 966 1092 4588	T≥ 9 21 20 10 9 11 14 7 4 9 3 5 5 3 3 3 29 492-1, 156 509 1659 45 4
, ≥ 6 18 21 16 5 7 6 2 3 2 3 1 1 4 3 168-1 92 426 462 4545	≥ 6 28 21 3 13 10 11 5 14 4 4 4 3 2 1 1 8 234-1 132 63 842 4545
( ≥ 3 8 4 7 3 1 2 1 1 54~1 26 75 77 4545	t ≥ 3 12 8 10 8 2 1 3 3 4 1 90-1 52 215 224 464-
6 -2 18 24 30 36 42 48 54 60 66 72 78 84 90 96+ MAX TI T TA TH HOURS INTERVAL BETWEEN EVENTS	6 12 18 24 30 36 42 48 34 60 66 72 78 84 90 96. MAY TO TO TO TO TO TO TO TO TO TO TO TO TO
9 46.3N 156.0W	10 45.6N 144.2W
1 5 SEA-5 5 1840 4566 4566	W≥64 5 SEA-5 5 1840 4566 4566
V≥48 6 SEA-5 6 2009 4950 4952	A≥48 1 1 1955 4642 4649
E ≥ 34	E ≥ 34 1 1 1 1 1 1 1 1 27 SEA-1 33 3326 5254 5336
H - 20 5 5 7 2 5 7 2 7 7 7 7 7 7 7 7 7 7 7 7 7	H ≥ 28 5 3 2 3 4 3 4 2 2 1 5 2 48 SEA-1 84 3766, 49€3 5233
E \(\frac{2}{2}\) 13 15 9 11 10 7 9 6 6 8 8 8 4 8 1 3 63 708 - 1 181 3154 3631 4620	£ ≥ 20   13   11   10   13   6   9   6   6   7   7   8   2   6   4   3   58   (220 - 1   169   326 - 1   3279   485 3 1 ≥ 16   31   24   15   13   8   11   5   9   8   5   10   8   3   2   4   48   437 - 1   204   246 7   2784   46 37
G ≥ 12 47 32 21 18 15 7 9 9 2 5 4 4 5 2 4 29 300 -1 213 1596 1753 4610	
T≥ 9 40 29 6 9 10 8 9 13 1 3 2 5 1 3 13 234-1 162 913 982 4578	
<u>28 28 28 4 8 6 4 1 3 5 1 3 1 78 - 1 102 344 367 4550</u>	
t ≥ 3 4 1 5 1 1 1 1 36 36 4547	$\frac{2}{12} = 6 \cdot \frac{31}{15} \cdot \frac{13}{15} \cdot \frac{4}{15} \cdot \frac{6}{15} \cdot \frac{4}{12} \cdot \frac{1}{15} \cdot \frac{2}{15} \cdot \frac{4}{15} \cdot \frac{2}{15} \cdot \frac{4}{15} \cdot \frac{2}{15} \cdot \frac{4}{15} \cdot 4$
6 12 18 24 30 36 42 48 54 60 66 72 78 d4 90 96 MAX TI T TO TH	6 12 18 24 30 36 42 48 54 50 66 72 78 84 90 95+ MAX T. T. T.
HOURS INTERVAL BETWEEN EVENTS  11 46.3N 135.2W	HOURS INTERVAL BETWEEN EVENTS
W ≥ 64	12 46.3N 126.4W W≥64 55SEA-5 5 184€ 456€ 456€
V≥48 8 SEA-5 8 2428 5126 5129	A≥48   5 SEA-5 5 1840 4566 4566
E ≥ 34 2 3 1 25 SEA-1 31 2768 5184 5265	E ≥ 34 1 1 1 14 SEA-3 17 2787 5458 5488
H ≥ 28 3 2 3 2 1 1 1 1 2 5 3 2 2 1 1 1 1 44 1728-1 74 3452 4894 5171	H ≥ 28 1 1 1 1 1 1 2 28 1290 - 1 35 2693 4912 5018
£ ≥ 20   9   14   8   10   10   7   8   12   4   8   1   4   5   4   2   57   1002 - 1   163   3142   3840   4841	E ≥ 20 9 5 5 1 2 1 2 2 3 4 1 3 1 2 3 50 1266-1 94 3226 448; 4955
1 ≥ 16 19 15 22 10 16 15 8 8 5 8 7 2 2 1 2 54 552-1 194 2704 3016 4683	1 ≥ 16 16 9 13 6 5 9 6 6 2 3 3 2 4 4 2 58 912-1 148 2960 3691 4685
$\frac{1}{4} \ge \frac{12}{30} \frac{30}{21} \frac{17}{17} \frac{11}{15} \frac{16}{16} \frac{7}{15} \frac{5}{3} \frac{3}{2} \frac{3}{3} \frac{4}{11} \frac{1}{2} \frac{2}{6} \frac{6}{37} \frac{396-2}{396-2} \frac{180}{1824} \frac{1824}{2062} \frac{2062}{4595}$	G <sub>H</sub> ≥12 22 18 14 12 8 11 7 11 3 6 9 8 2 1 2 50 618-1 184 2356 2766 4617
T≥ 9 28 28 16 11 11 5 7 2 7 3 6 2 1 1 25 378 - 1 148 1179 1330 4555	T≥ 9 32 15 18 18 12 10 7 10 3 7 4 5 4 1 4 33 492-1 183 1751 1929 4575
, ≥ 6 29 17 16 13 5 4 6 2 4 4 2 3 2 2 6 228 - 1 115 615 665 4\$45 1 ≥ 3 16 8 4 3 4 1 2 1 1 1 1 84 - 1 41 133 152 4\$45	≥ 6 35 27 8 12 8 10 5 5 4 5 2 6 3 1 1 20 354 - 1 152 1067 1169 4555 1
$t \ge 3 \begin{array}{ c c c c c c c c c c c c c c c c c c c$	t ≥ 3 2€ 11 10 8 8 2 7 3 1 1 1 1 1 1 1 204-1 82 313 343 4545
HOURS INTERVAL BETWEEN EVENTS	6 12 18 24 30 36 42 48 54 60 66 72 78 84 90 96+ WAY 7) T T+ 71 HOURS INTERVAL BETWEEN EVENTS
3 Parsistance of wave height-interval	E_II

1712	
1 58.5N 151.6W	2 59.2N 145.7W
₩≥64 A 17219	W ≥ 64 17219
ÿ≥48   1   2   1	V≥48 1 1 1 17219
E ≥ 34 10 5 10 3 8 2-5 36 107 107 17219	E ≥ 34 6 6 10 3 6 2-2 31 92 92 17219
H ≥ 28   13   20   19   14   25   6   3-1   97   375   376   172   19	H ≥ 28 26 18 15 9 28 3 3-1 99 338 339 172 19
E ≥ 20   35   37   24   31   81   29   14   3   2	E ≥ 20 57 28 24 22 69 30 13 5 3 6-1 251 1368 1393 17219
1 ≥ 16 42 37 48 29 108 59 22 11 11 2 15-1 369 2527 2571 17219	1 ≥ 16 85 31 22 31 1249 24 13 14 1 11-1 382 2542 2590 17219
$\frac{1}{12} \ge 12   65  59  41  60  54  72  32  23  36  3  1                                  $	$\vec{H} \ge 12$ 85 29 36 39 1889 38 25 42 5 17219
$T \ge 9 96 44 42 50 43 06 50 33 68 12 1 40-1 645 6504 6774 17219$	T≥ 9 82 47 34 36 18 99 55 35 69 14 4 23-2 593 6617 6958 17219
≥ 6 93 62 30 36 38 92 58 44 95 37 5 1 55-1 691 9373 9867 17219	<u>2 6 96 50 23 23 86 94 50 39 93 41 5 4 56-1 604 9314 9973 17219</u>
£ 3 52 35 23 31 53 72 41 38 95 50 10 6 5 1 93-1 512 11872 13772 17219	t ≥ 3 51 24 14 17 45 32 43 33 77 58 16 7 4 89-1 421 11784 13966 17219
.25 5 75 · 2 3 4 5 10 20 30 60 90 180360 00 MAX TE T TW TH DAYS DURATION OF EVENTS	.25 5 75 1 2 3 4 5 10 20 30 60 90 180360 00 MAX TE T T+ TH DAYS DURATION OF EVENTS
3 54.4N 158.1W	DAYS DURATION OF EVENTS 56.2N 147.5W
₩≥64 17219	₩≥64 172!9
$\stackrel{A}{\vee} \ge 48 \ 4 \ 2 \ 1 \ 3 \ 1$	$^{\text{A}}_{\text{V}} \ge 48 \ 1 \ 3$
£ ± 34 12 17 10 15 11 1 1 3-1 66 215 215 17219	E ≥ 34 10 12 B 5 12 1 2-1 48 154 155 :7219
≥ 28 31 27 21 26 52 9 1 4-1 167 663 667 17219	u ≥ 28 26 27 22 20 44 7 3-3 146 570 571 172 9
E ≥ 20 56 47 38 43 130 53 19 6 6 6 6 2 398 2323 2357 17219	E ≥ 20 33 40 37 38 10842 20 10 6 8-1 334 2101 2126 · 17219
≥ 16 93 65 53 44 16 193 29 28 21 9-1 587 4010 4114 17219	1 ≥ 16 50 36 47 40 4682 31 23 22 1 11-1 478 3713 3787 17219
$\frac{G}{H} \ge 12 \   62 \   54 \   44 \   43 \   74 \   1062 \   47 \   70 \   4 \   1 $   22-1 691 6747 6951 17219	$G \mapsto 12 \ 66 \ 47 \ 44 \ 40 \ 51 \ 1653 \ 28 \ 70 \ 7$
$T \ge 980525045124808049108344$	T≥ 9 60 36 45 36 08 0466 34 08 32 3 30-1 632 8833 9403 17219
£ 6 62 36 24 17 98 56 59 42 88 47 16 11 1 65-1 557 11653 13119 17219	, ≥ 6 31 21 23 20 72 66 56 34 78 52 16 10 1 63-1 480 11330 12685 172 9
. > 2 2 9 2 8 20 18 13 23 36 34 10 18 2 2 1 197-1 219 10325 16162 17219	$t \ge 3$ 26 6 10 10 17 14 15 10 52 33 8 11 4 5   161-1 221 10665 15742 17219
25 5 75 · 2 3 4 5 i0 20 30 60 90 180360 00 MAX TE T Te TH	25 5 75 6 2 3 4 5 10 20 30 60 90 180360 00 MAX TE T TH
DAYS DURATION OF EVENTS	DAYS DURATION OF EVENTS
5 56.8N 141.9₩ #≥64 17219	6 50.9N 145.7W
	W≥64 17219
© ≥48 3 ; 1-1 4 5 5 17219 E ≥ 34 18   15   10   11 1 2-1 69 199 200 17219	Ç≥48 3 1 1 1 1-1 5 8 8 :72:9
F + + - + - + - + - + - + - + - + - + -	E ≥ 34   24   16   21   10   13
± ≥ 28   22   13   16   28   48   6   3   4 - 1   136   612   627   17219	H ≥ 28 36 33 30 30 58 7 3 4-1 197 766 777 17219
€ 20 24 25 27 37 1854 16 14 4 8-1 319 2220 2247 17219	E ≥ 20   53   45   39   53   46   71   22   12   8
≥ 16 43 39 35 26 40 77 43 18 34 10 - 1 455 3855 3919 17219	G≥ 16 74 46 47 37 54 0343 30 38 4 18-1 576 4931 4998 17219
H ≥ 12 44 43 33 30 29 0745 23 81 9 2 21-1 546 6168 6477 17219	$\frac{1}{12}$ 12 69 46 34 37 00 17 42 39 69 32 2 2 2 2 1 50 75 15 7963 172 19
$7 \ge 9 \   53 \   33 \   34 \   27 \   0490 \   60 \   34 \   86 \   34 \   4 \   1 $   39 - 1   560   8311   9001   17219	T≥ 9 54 26 24 35 10 9n 56 70 00 45 16 2 32-1 558 9765 10728 :72:9
. ≥ 6   43   23   20   22   67   47   53   37   83   58   11   10	, ≥ 6 25 16 18 16 48 46 43 32 79 32 19 18 3 65-1 395 11734 13786 2.9
$t \ge 3$ 20 16 9 9 27 17 18 17 52 37 14 11 3 4 138 1 254 10700 15372 17219	$t \ge 3 \boxed{9 \ 6 \ 7 \ 5 \ 14 \ 10 \ 10 \ 9 \ 32 \ 29 \ 6 \ 10 \ 6 \ 4} \qquad \boxed{72-1 \ 157 \ 9710 \ 16161 \ 172.9}$
25 5 75 7 2 3 4 5 10 20 30 60 90 180360 00 MAX TE T TA TH DAYS DURATION OF EVENTS	25 5 75 1 2 3 4 5 10 20 30 60 90 180 360 00 WAX TE T TO THE DAYS DURATION OF EVENTS
7 51.7N 135 7W	8 49.0N 128.4W
$\frac{W}{\Delta}$ 64 1 1 1 -1 1 2 2 17219	₩≥64 17219
7:48 2 1 1 1 1 17219	<sup>A</sup> ≥ 48 1 1 1 2 2 17219
F ≥ 34 26 16 15 9 15 1 3-1 82 235 235 17219	E ≥ 34 15 10 12 6 4 1 3~1 48 128 128 17219
≥ 28 37 28 28 32 48 9 1 4-1 183 699 701 17219	H ≥ 28 17 26 21 8 31 4 1 1 1 4-1 109 419 419 72:9
c = 20 48 45 46 3: 13759 22 11 6 1 11-1 406 2562 2581 17219	E ≥ 20 37 41 22 40 83 40 18 4 4 8 8 -1 289 1718 1732 172 4
<u> </u> ≥ 16 45 47 35 34 45 72 41 28 35 3	≥ 16 45 31 36 28 1858 22 23 22 3 1 13-1 386 3092 3156 17219
≥ 12 57 42 41 23 23 90 50 27 67 26 2 23-1 548 6800 7061 17219	H ≥ 12 48 34 35 24 97 71 41 22 60 18 18 -1 450 5214 5415 7219.
F≥ 9 46 42 32 25 0284 48 44 75 48 B i 47-1 555 9131 9684 17219	T≥ 9 40 46 30 29 88 58 50 26 69 41 5 21-1 482 7320 7834 7219
≥ 6 46 26 19 23 64 41 48 27 74 54 19 11 1 70-1 453 11185 12743 17219	<u>2 6 67 45 31 28 75 48 41 24 85 56 16 5</u> 47-1 521 10224 11244 72.9
. ÷ 3 40 11 10 10 28 13 18 13 43 35 4 22 4 3 135-1 254 10994 15636 17219	2 3 48 24 14 12 32 18 19 15 42 45 14 21 3 2 126-1 309 11762 14946 7219
25 5 75 - 2 3 4 5 -0 20 30 60 90 180360 00 MAX TE T TH TH	25 5 75 1 2 3 4 5 10 20 30 60 90 180360 00 MAX TE T THE TH
DAYS DURATION OF EVENTS 9 46.3N 156.0W	DAYS DURATION OF EVENTS 10 45.6N 144.2W
W ≥ 64 17218	W≥64 1 1°2'8
= 248 3 1 1 1-1 4 7 8 17218	$\stackrel{A}{V} \ge 48 \ 3 \ 1 \ 2 $
£ ± 34 15 11 2 9 14 2-1 61 182 188 17218	E ≥ 34 16 22 9 4 10 1 3-1 62 170 175 172 16
≥ 28 54 50 24 18 50 8 1 4-1 205 697 716 17218	≥ 28 41 29 33 19 42 7 1 4-1 172 602 609 172 18
€ ≥ 20 80 71 48 38 49 68 13 12 7 7-1 486 2707 2777 17218	E ≥ 20 59 42 58 41 3253 24 6 6 1 11-1 422 2493 2550 17218
≥ 16 67 83 60 65 7099 45 18 39 2 14-1 648 4868 5016 17218	≥ 16 53 37 51 46 14 177 47 22 35 5 14-1 514 4409 4538 17218
2 12 67 53 57 34 668 1846 40 78 22 2 2 25 -1 685 7833 8229 17218	$G \mapsto 12 \times 48 \times 43 \times 33 \times 33 \times 33 \times 33 \times 77 \times 59 \times 24 \times 64 \times 23 \times 4 \times 1 $ $41-1 \times 542 \times 6937 \times 7336 \times 17218$
T = 9 71 29 25 30 10 274 69 43 77 41 11 5 36-3 577 10052 11062 172 18	T≥ 9 49 33 26 32 95 77 42 35 77 34 12 6 46-1 518 9053 10026 17218
≥ 6 45 20 22 20 49 48 46 36 67 39 15 13 4 83-1 424 11085 13815 17218	≥ 6 46 19 18 12 49 48 33 22 66 38 18 14 3 1 108-1 387 11154 13052 172 18
· ≥ 3 15 8 3 7 14 9 8 7 29 21 10 7 3 3 1 238 - 1 145 8137 16241 17218	<u>1 ≥ 3 21 12 7 10 18 12 14 10 38 24 6 11 7 2 2 205-1 194 10212 15706 17218</u>
25 5 75 - 2 3 4 5 10 20 30 60 90 180 360 00 MAX TE T TO TH	25 5 75 1 2 3 4 5 10 20 30 60 90 180360 00 MAX TE T TH
DAYS DURATION OF EVENTS 11 46.3N 135 2W	DAYS DURATION OF EVENTS
W≥64 17219	12 46.3N 126.4W W≥64 17219
248 5 1 1-1 6 8 8 17219	Δ <del>                                     </del>
£ 34 20 9 8 6 8 i 3-1 52 147 147 17219	
2 3 2 2 9 3 0 2 1 2 1 3 6 3 1 1 5 1 1 2 1 2 1 3 6 3 1 1 1 5 - 1 1 4 2 5 1 2 5 1 2 1 7 2 1 9	
F ± 20   58   43   36   32   0551   21   10   3	≥ 28 21 9 9 8 13 3 3 3 3 17219
2 16 55 51 53 33 1966 32 20 28 7 13-1 464 3797 3880 17219	E ≥ 20 43 32 25 17 60 23 5 5 1 6 1 211 1039 1048 17219
	G ≥ 16 68 41 27 26 90 34 19 11 17 10 − 1 333 2204 2241 17219
	G ≥ 12 77 45 32 32 10469 29 20 41 11 18-1 460 4282 4414 17219
7 ± 9 57 32 30 30 88 58 41 27 78 38 13 1 45 - 1 493 8369 9026 17219	T≥ 9 85 47 26 28 99 74 45 30 73 23 3 25-1 533 6558 6877 17219
2 6 47 26 2° 24 73 51 35 22 75 43 14 12 2 74-1 445 10534 12044 17219	≥ 6 1955 36 27 80 56 56 37 87 40 13 3 37-1 609 9488 10198 17219
$1 \stackrel{?}{=} 3 \stackrel{?}{=} 28 \stackrel{?}{=} 22 \stackrel{?}{=} 7 \stackrel{?}{=} 8 \stackrel{?}{=} 31 \stackrel{?}{=} 122 \stackrel{?}{=} 17 \stackrel{?}{=} 23 \stackrel{?}{=} 23 \stackrel{?}{=} 4 \stackrel{?}{=} 5 \stackrel{?}{=} 23 \stackrel{?}{=} 23 \stackrel{?}{=} 23 \stackrel{?}{=} 3 \stackrel{?}{=} 33 ?$	₹ 3 <del>83</del> 33 25 17 31 33 24 23 53 45 23 20 4 87-1 414 12122 14696 17219
DAYS DURATION OF EVENTS	.25 5 75 1 2 3 4 5 10 20 30 60 90 180360 00 WAY TE T TO THE DAYS DURATION OF EVENTS
Annual	23 Persistence of wave height-duration

Annual

23 Persistence of wave height-duration

	11-51:
58.5N 151.6W	2 59 2N 145.7W
₩≥64 17219 17219	W≥64 17219 17219
A ≥ 46 1 72-1 1 288 17210 17219	Å≥48 17218 17219
E \(\alpha\) 3   1   2   1   3   7   2   5   1   1   213-1   24   3196   17112   17219	E ≥ 34
H ≥ 28 2 1 1 1 1 9 4 3 3 15 17 7 11 1 1 1 212-1 77 5649 16843 17219	H ≥ 28 4 3 1 3 6 7 1 3 9 16 10 11 1 1 208 - 1 76 5242 16860 172 19
E ≥ 20 14 16 10 6 28 12 14 13 45 40 18 10 5 177-1 231 10657 15794 17219	E ≥ 20 17 15 5 7 22 18 12 13 44 49 11 9 1 1 2 198 -1 226 9584 15826 .7219
G 3 1 3 5 1 3 2 3 1 3 3 0 0 5 7 1 0 25 9 0 5 1 5 5 1 1 5 2 0 1 2 1 1 5 9 1 1 5 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1	G ≥ 16 32 18 14 12 52 38 30 17 85 40 9 6 1 3 143 - 1 357 12135 14629 17219
$\frac{1}{12} = \frac{12}$	$\frac{1}{12} \ge 12 \frac{154}{24} = \frac{127}{29} = \frac{15}{129} = $
$T \ge 9$ 77 44 48 46 1892 66 34 69 30 6 5 3   81-1 638 9520 0445 17219 $\ge 6$ 1672 66 53 5084 48 26 52 15 6 4   37-1 692 7027 7352 17219	302 32 32 32 32 32 32 32 32 32 32 32 32 32
172 do 53 3 3 3 3 4 4 5 2 5 3 2 1 7 6 6 5 0 98 48 24 18 18 8 17 − 1 527 3324 3447 17219	20 20 20 20 20 20 20 20 20 20 20 20 20 2
25 5 75 1 2 3 4 5 10 20 30 60 90 160340 00 MAX TI T Te TH	$t \ge 3 \ 84 \ 59 \ 51 \ 48 \ 91 \ 48 \ 22 \ 11 \ 22 \ 7 \ 1 \               $
DAYS INTERVAL BETWEEN EVENTS	DAYS INTERVAL BETWEEN EVENTS
3 54.4N 158.1W ₩≥h4 17219 17219	4 56.2N 147 5W ₩≥64 172.9 172.9
$A \ge 48$ 1 2 1 116-1 4 754 17191 17219	01/2 9 2 9 ♦ 248 1 1 72-1 1 286 17212 7219
E < 34   1   1   4   2   1   8   12   7   8   4   2     180 - 1   50     5184   17004   17219	E \( \frac{34}{2} \) \( \frac{2}{2} \) \( \frac{2}{2} \) \( \frac{2}{1} \) \( \frac{7}{6} \) \( \frac{9}{1} \) \( \frac{1}{1} \) \( \frac{213}{13} \) \( \frac{13}{3} \) \( \frac{3759}{17064} \) \( \frac{172}{172} \) \( \frac{9}{2} \) \( \frac{1}{12} \) \( \fra
≥ 28 3 4 5 6 7 13 8 7 33 32 11 8 2 3 179 - 1 142 8119 16552 17219	≥28 6 6 4 2 9 11 3 5 18 24 20 8 2 3 250 - 1 121 8719 16648 772:91
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2 16 51 40 38 35 02€7 48 35 80 54 9 6 3 1 112-1 569 11408 13105 17219	1 £ 16 43 23 14 21 10252 39 21 80 47 6 4 1 3 142-1 456 10181, 13432; 17219
$\frac{G}{h} \ge 12 73 74 67 47 127 83 52 31 79 33 7 4 2 72-1 679 94 14 10268 172 19$	G = 12 67 58 48 43 2476 43 35 71 32 6 6 4 84-1 613 9680 :0679 1-219
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£ \( \frac{34}{3} \) \( \frac{1}{3} \) \(	E ≥ 34 3 6 1 5 4 4 3 7 12 11 11 49 - 1 62 3/49 6985 72.9
$\frac{1}{2} \ge \frac{1}{2} = \frac{1}$	H ≥ 28 12 6 7 4 25 16 12 11 25 29 17 7 1 1 1 236 - 1 173 739 6447 173 4
E ≥ 20   20   9   7   10   41   34   24   15   67   49   7   6   1   4	E ≥ 20   43   32   21   27   65   51   34   25   63   43   9   5   1   4   1   154 - 1   423   10439   14341   1219
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r 421 29 6 3 12 1 73 39 23 26 56 43 12 4 3 152-1 382 9882 14638 17219	$f \ge 20 \cdot 15 \cdot 20 \cdot 12 \cdot 13 \cdot 38 \cdot 32 \cdot 15 \cdot 15 \cdot 15 \cdot 135 \cdot 10 \cdot 15 \cdot 11 \cdot 12$ . 159 - 1 1 264 1 1845 1 1348 1 1 1 1 1 3
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7	1 ≥ 16 60 53 35 32 78 61 28 26 62 41 7 6 2 3 151-1494 9944 12080 17216
. 2 12 12694 56 43 1 1 77 / 42 24 66 31 4 5 58 - 1 665 8132 8989 17218	$\frac{G}{H} \ge 12 \cdot 61 \cdot 43 \cdot 49 \cdot 36 \cdot 2055 \cdot 44 \cdot 26 \cdot 65 \cdot 25 \cdot 8 \cdot 3 \cdot 3 \cdot 1 \cdot 1 \cdot 92 - 1 \cdot 539 \cdot 8580 \cdot 9882 \cdot 172 \cdot 8$
e 9 10 276 58 39 294 1 35 24 53 18 3 2 44-1 1685 5833 6 156 17218	T≥ 9 89 58 54 37 92 60 32 19 53 21 5 3 1 66-1 524 6394 7.92 172 E
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17219 17219	₩ ≥ 64
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6 4 34 1 7 6 1 4 7 15 6 6 1 83 1 38 2381 17072 17219	E 234 2 1 2 1 1 2 5 1 96 1 5 1662 164 11219
≥ 28 6 5 16 2 12 15 5 10 8 18 118 3 1 1 163 1 120 5866 16707 17219	≥ 28 1 2 1 2 4 1 6 11 7 10 55 - 2 50 3372 17016 1719
r e 20   23   29   19   20   61   37   26   20   52   38   5   8   1   2     169   1   341   8660   5069   17219   816   46   34   34   20   50   43   21   30   64   40   5   5   3   3   125   1   449   9743   13339   17219	E \$ 20 14 15 14 14 22 20 16 9 30 28 12 5 1 1 1 169 -1 91 6132 1611 17:19 16 16 35 20 23 11 54 25 19 21 51 36 11 3 2 1 19C -1 3 2 1629 149 76 17:19
2 16 45 34 34 20 0 14 3 2 1 3 0 64 40 5 5 3 3 3 125 1 449 9743 13339 17219	2 16 35 20 23 1 1 54 25 19 21 5 1 36 111 3
1 > 9 69 60 49 35 83 48 34 30 46 27 5 3 3 86 1 492 7100 8193 17219	T = 9 80 47 42 32 94 57 35 27 75 28 5 3 2 2 117-1529 8289 10342 1729
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DAYS INTERVAL BETWEEN EVENTS	NAYS INTERVAL BETWEEN EVENTS
23 Persistence of wave height-interval	Annua

# Set 24. Annual maximum wind and wave for selected return periods (Refer to introductory text of Section II for additional information.)

Annual Maximum Winds for Selected Return Periods

Values of the annual maximum sustained wind speeds for selected return periods are presented in the table below for selected coastal stations. These tabular values may be used to construct a graphical analysis of the data similar to the one in Figure 1. The procedure is as follows:

- 1. Use Fisher-Tippett, Type 1 extreme value probability paper with a natural logarithmic ordinate scale and a probability scaled abscissa. A linear reduced variate scale is also useful in locating intermediate probabilities.
- 2. Select and plot the annual maximum wind speeds at their corresponding probability values from Table.
- 3. Draw a straight line connecting those points. This is the line of best fit from which wind speed estimates for intermediate probabilities can be obtained.
- 4. A one standard error confidence band may be drawn by computing the upper and lowert bound according to Gumbel (1958). The computational procedure is as follows:

```
    a. S9 = √(1/P-1)/(-tn(P))
    b. TP - S9 × A1/ N , A1 - 1/β
    c. Upper Bound (P) = Exp(Ln(x(P))) + TP
    d. Lower Bound (P) = Exp(Ln(x(P))) - TP
```

where S9 = a probability term. TP = standard error at probability P, A1 = scale term  $1/\beta$ . x [P] is the wind speed at probability [P] in knots, and [N] = sample size. This will give an envelope of the 68-percent confidence band for the estimates

Graphs similar to Figure 1 have been drawn for each station's annual and monthly values and are available on microfiche from the National Climatic Data Center, Federal Building, Asheville, NC, 28801. Any questions regarding the application of the extreme value model should be addressed to Larry Nicodemus, telephone number (704) 259-0366.

ANNUAL 1	MAXIMUM	SUSTAINED	WINDS	KNOTS	S FOR	R SEL	ECTEL	RETURN	PERIOD	5
STATION NAME		2	PETI 5	JRN PERI 13	0D + 1Ef 25	ARS. SJ	198	PAP MODE	AMETERS BETA	٠,
KODIAK, AK HOMER, AK KENAI, AK ANCHORAGE, AK VALDEZ, AK		42.2 29.7 32.4 30.5 34.1	47.8 34.1 39.1 36.7 42.2	51.9 37.4 44.2 41.6 48.7	56.1 40.8 49.8 46.8 55.8	62.1 45.7 58.0 54.6 66.6	67.0 49.8 65.1 61.3 76.0		.1088 .1226 .1645 .1650 .1896	40 37 36 31 18
MIDOLETON, AK CORDOVA, AK YAKUTAT, AK SIIKA, AK ANNETTE, AK		51.8 35.7 37.7 44.7 38.3	59.1 46.4 44.8 55.1 44.9	64.5 55.3 50.2 63.2 49.9	70.2 65.4 56.0 72.2 55.2	78.2 81.3 64.5 85.7 63.0	84.3 95.7 71.7 97.4 69.4	49.8 32.7 35.7 41.8 38.4		24 39 37 57 57
CAPE ST. JAMES, TOFINO, CN OUILLAYUTE, WA ASTORIA, OR NORTH BEND, OR	CM	72.7 34.5 23.3 33.9 32.3	81.7 40.0 26.6 40.6 38.2	88.2 44.2 29.1 45.8 42.6	95.0 48.6 31.6 51.4 47.4	104.6 54.9 35.2 59.7 54.3	112.3 60.2 38.2 66.7 60.2	70.0 32.9 22.4 32.0 30.6	.1028 .1320 .1161 .1600 .1471	31 24 18 36 36
OCEAN STATION VE	ESSEL P	60.2	69.1	~E	83.6	92.6	160.5	57.K	.1218	33

NOTE: SOME OF THE HIGHER RETURN PERIOD VALUES MAY BE INPEALISTIC BECAUSE OF THE SMALL SAMPLE SIZE. THE CONFIDENCE BANDS AT THESE VALUES MAY BE UNUSUALLY WIDE, WHICH INDICATES A HIGH LEVEL OF UNCERTAINTY.

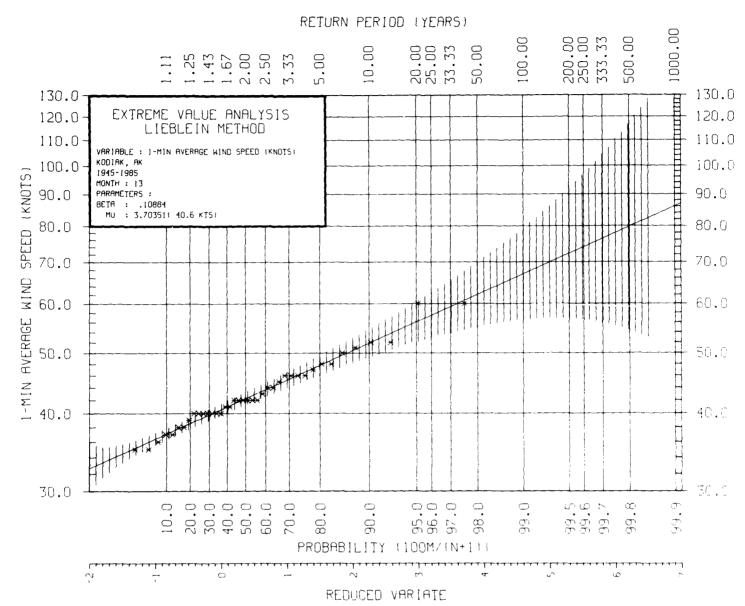


Figure 1. Graphical analysis of annual extreme sustained wind speeds for Kodiok, Ak

### 24 Return period winds and waves

#### ANNUAL MAXIMUM SUSTAINED WINDS (KNOTS) FOR SELECTED RETURN PERIODS

GRID PT.	LATITUDE	LONGITUDE		RETU	JRN PERI		ARS)			METERS	
			2	5	10	25	50	100	MODE	BETA	N
01	58.5 N	151.6 W	51.8	59.8	65.8	72.1	81.3	88.8	49.4	.1275	12
02	59.2 N	145.7 W	51.1	56.2	59.8	63.5	68.7	72.8	49.6	.0834	12
03	54.4 N	158.1 W	62.7	72.9	80.6	88.8	100.6	110.5	59.7	.1339	12
04	56.2 N	147.5 W	52.0	57.4	61.4	65.4	70.9	75.4	50.4	.0878	12
05	56.8 N	141.9 W	52.3	57.2	60.7	64.2	69.1	73.0	50.8	.0786	12
06	50.9 N	145.7 W	55.7	62.1	66.8	71.6	78.3	83.8	53.7	.0967	12
07	51.7 N	135.7 W	58.9	65.5	70.3	75.3	82.2	87.8	56.9	.0942	12
08	49.0 N	128.4 W	55.8	60.5	63.8	67.2	71.8	75.5	54.3	.0715	12
09	46.3 N	156.0 W	61.4	70.8	77.9	85.3	95.9	104.8	58.6	.1262	12
10	45.6 N	144.2 W	54.8	62.1	67.4	73.0	80.9	87.4	52.6	.1103	12
11	46.3 N	135.2 W	55.0	63.9	70.6	77.6	87.8	96.4	52.4	.1324	12
12	46.3 N	126.4 W	54.3	60.3	64.7	69.2	75.5	80.6	52.4	.0934	12

#### ANNUAL MAXIMUM WAVE HEIGHT (FEET) FOR SELECTED RETURN PERIODS

GRID PT.	LATITUDE	LONGITUDE		RET	URN PER	IOD (YE	ARS)		PARAMETERS	
			2	5	10	25	50	100	MODE BETA	N
01	58.5 N	151.6 W	39.9	46.6	51.0	55.3	60.8	64.9	37.7 5.9100	12
02	59.2 N	145.7 W	37.8	42.8	46.0	49.2	53.2	56.3	36.2 4.3567	12
03	54.4 N	158.1 W	47.6	55.9	61.4	66.7	73.6	78.7	44.9 7.3438	12
04	56.2 N	147.5 W	40.3	45.5	49.0	52.4	56.7	60.0	38.6 4.6492	12
05	56.8 N	141.9 W	43.2	49.7	54.0	58.1	63.5	67.5	41.1 5.7370	12
06	50.9 N	145.7 W	43.1	49.3	53.3	57.2	62.3	66.0	41.2 5.4091	12
07	51.7 N	135.7 W	42.6	49.3	53.8	58.1	63.6	67.8	40.4 5.9422	12
08	49.0 N	128.4 W	39.8	44.2	47.2	50.0	53.7	56.4	38.3 3.9282	12
09	46.3 N	156.0 W	43.0	50.2	55.0	59.6	65.5	69.9	40.7 6.3428	12
10	45.6 N	144.2 W	43.9	52.5	58.2	63.7	70.7	76.0	41.2 7.5809	12
11	46.3 N	135.2 W	40.4	48.2	53.4	58.3	64.8	69.6	37.8 6.8996	12
12	46.3 N	126.4 W	36.0	40.2	42.9	45.5	48.9	51.5	34.7 3.6594	12

NOTE: SOME OF THE HIGHER RETURN PERIOD VALUES MAY BE UNREALISTIC BECAUSE OF THE SMALL SAMPLE SIZE. THE CONFIDENCE BANDS AT THESE VALUES MAY BE UNUSUALLY WIDE, WHICH INDICATES A HIGH LEVEL OF UNCERTAINTY.

Graphical analysis of wave data similar to Figure 1 may be done using the same procedures outlined on the first page of this set. However, the Ymaxis should be linearly scaled instead of the logarithmic scale used for the wind data. Since the extreme wave statistics are based on the assumption of winds blowing over open water without fetch restrictions, the wave height extremes are likely to be unrealistically high during the winter season for those few grid points located within an area having a probability of ice restricting the development of waves. Refer to the ice statistics in Sets 17-19. Refer to the map in Set 23 for the location of the 12 grid points and to the introductory text for additional information on this set.

**Annual** 

24 Return period winds and waves

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